THE WONDERS OF NATURE AND ART;

BEING AN
ACCOUNT
OF
Whatever is moſt Curious and Remarkable
throughout the WORLD;
Whether relating to its
Animals, Vegetables, Minerals, Volcanoes, Cataracts, Hot and Cold Springs,
AND
Other Parts of Natural History;
OR, TO THE
Buildings, Manufactures, Inventions,
and Discoveries of its Inhabitants.

The Whole collected from the Writings of the beſt Historians, Travellers, Geographers, and Philosophers, among which are ſome *Original Manuſcripts*; interſperſed with pious Observations and Reflections; illuſtrated with Notes, and adorned with Copper-Plates.

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BRITISH MUSEUM

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THE WONDERS OF NATURE AND ART.

CHAP. II.

OF NORTH AMERICA.

WE have already given a view of what is moſt remarkable in the South part of this continent, and ſhall now proceed to the North, which lies between the tenth and the eighteenth degrees of north latitude. and for the moſt part between the longitudes of 48 and 130 degrees, weſt from the meridian of London, it being about 4200 miles from north to ſouth, and in ſome places no leſs than 5000 from eaſt to weſt. The greateſt part of this vaſt extent of territory is at preſent poſſeſſed by the ſubjects of his Britannic majeſty, and the original natives, uſually called Indians, who are much more numerous than the Engliſh. Indeed, the northern part is for the ſpace of thirty degrees ſo cold as to be ſcarce inhabitable by any Europeans, and there it muſt be confeſſed that our claim to it is only nominal. The breadth of this country, from eaſt to weſt in thoſe northern regions is much greater than what we have mentioned, it being found, by the diſcoveries of the Ruſſians, that the northern coaſt of America extends weſtward very near to Siberia, and that the coaſt which thus reaches almoſt to Aſia, is much more fertile than the barren countries of Kamtſchatka.

UNDER this diviſion of the American continent are comprehended, beginning at the ſouth, Mexico or New Spain, New Mexico, Louiſiana, and the peninſula of California, all which belong to Spain: Florida, Georgia, Carolina, Virginia, Maryland, Penſylvania, New Jerſey, New York, New England, Nova Scotia, and Canada, which laſt comprehends the interior country on the back of ſeveral of our ſettlements, and theſe countries at preſent belong to Great Britain, and the Indians, the original inhabitants, who conſiſt of numerous tribes. Beſides theſe, there are the extenſive tracts in the frozen regions, already mentioned; theſe border on Hudſon's Bay, and are chiefly inhabited by a people called Eſkimaus, and here we have no ſettlements, except a few inconſiderable places belonging to the Hudſon's Bay company.

THERE is no part of North America more celebrated in hiſtory, than Mexico or New Spain, which was for ſeveral ages a great and flouriſhing monarchy, governed by it's own kings, choſen out of their chief captains, without regard to hereditary ſucceſſion, till the year 1521, when it was intirely conquered by the Spaniards under Ferdinando Cortez *.

THIS country extends from the 7th degree 30 minutes to the 30th degree 40 minutes north la-

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* See a particular account of the diſcovery and conqueſt of this country in The World diſplayed, Vol. I.

titude. It is bounded on the ſouth-eaſt by the Iſthmus of Darien; on the eaſt by the north ſea and the gulph of Mexico; on the ſouth and weſt by the Pacific ocean or South ſea; and on the north-weſt by New Mexico. This prodigious country ſtretches along the Pacific ocean above two thouſand miles, and the coaſt towards the Atlantic ocean is no leſs than ſixteen hundred in extent, but the breadth is extremely unequal, for to the north-weſt it is ſuppoſed to be between ſix and ſeven hundred miles over, while towards the ſouth-eaſt it is confined to the iſthmus, which in the narroweſt part is not much above ſixty miles broad.

THE greateſt part of this country lying within the Torrid zone, the air is extremely hot, but is qualified with refreſhing ſhowers, and with alternate land and ſea breezes; in ſome parts the vapours riſing from a great number of lakes and rivers cool the air, and render it mild and pleaſant. The greateſt heats are during the months of February, March, and April, when the ſun is ſeldom obſcured by clouds. The rainy ſeaſon begins towards the cloſe of April, and continues till the month of September; and is always preceded by tempeſts of thunder and lightning, which increaſe till June, when the rain falls in torrents. On the eaſtern coaſt, where the land is low and marſhy, the air is extremely unhealthy, and the land incumbered with almoſt impenetrable woods of mango-trees, that have a bare and diſagreeable aſpect, and extend a conſiderable way into the water. The inland country aſſumes a more agreeable appearance, and the air is more temperate; the tropical fruits grow here in great abundance, the land is beautifully variegated, and the ſoil extremely fertile. On the weſtern ſide the land, being not ſo low as on the eaſtern, is much better and abounds with plantations. In general, few places under the ſame climate enjoy more of the benefits of nature, and of the neceſſaries and luxuries of life; but, like all the tropical countries, it abounds more with fruit than with corn.

MEXICO is moſt valued by the Spaniards for it's mines of gold and ſilver, which are extremely numerous, but many of them are exhauſted. Here are alſo quarries of jaſper, porphyry, and beautiful marble; and likewiſe pearls, emeralds, and turquoiſes. But notwithſtanding all it's advantages, it is very thinly inhabited, for the Spaniards have never been able to people it in any tolerable degree.

THE province of New Mexico is ſuppoſed to extend between the 28th and 38th degrees of north latitude. On the north it is bounded by high mountains, and a country intirely unknown to the Europeans; on the eaſt it has the country of Louiſiana; on the weſt the Californian lake and the river Colerado; while on the ſouth it is bounded by Old Mexico; but the far greateſt part of this country is ſtill in the hands of the natives, who have the happineſs to enjoy their liberty.

As it is ſeated in the midſt of the temperate zone, it enjoys an agreeable climate; for, though the ſummers are very warm, and the winters pretty ſharp, the former are neither ſtifling nor unhealthy, nor the latter intenſely cold, nor deluged with floods of heavy rain, but the air is clear and ſalubrious. The country is finely watered with rivulets and rivers, but few of them are large or navigable. The land is beautifully interſperſed with riſing grounds and fertile plains, covered with trees, ſome of which are fit for timber, and others produce various kinds of fruits. Here are ſaid to be found gold and ſilver, turquoiſes, emeralds, and other precious ſtones. Here are all kinds of wild and tame cattle, eſpecially cows, with a prodigious variety of fowl, and the rivers are abundantly ſtored with the moſt delicious fiſh. In ſhort, it is affirmed to be one of the pleaſanteſt, richeſt, and moſt plentiful countries in the world. However, as in all the other Spaniſh ſettlements, only an inconſiderable part of the country is cultivated, compared with it's extent.

The peninſula of California is the moſt northern part of the Spaniſh dominions on the continent of America. It was for a long time conſidered as an iſland, but is now found to be a peninſula in the Pacific ocean, iſſuing from the north coaſt of America, and extending from cape Sebaſtian in the 43d degree 30 minutes north latitude to the ſouth eaſt, where it is terminated by St. Lucar, in the latitude 22 degrees 32 minutes, the whole peninſula being eight hundred miles in length. On the north it is bounded by an unknown part of the continent; on the eaſt by the province of New Mexico; from which it it ſeparated by the gulph of California, which ſome call the Purple, and others the Vermilion ſea; and by the Pacific ocean on the ſouth and weſt.

Though California lies for the moſt part in the temperate zone, the coaſt is very hot in ſummer, but within land the air is more temperate, In winter it is very cold but healthy; however, in ſo extenſive a country there muſt be great variations both of climate and ſoil; and it has not only many of the moſt inhoſpitable deſerts in the univerſe, but ſome of the moſt beautiful lawns, delightful woods, and the moſt inchanting paſtures and meadows. But, though this extenſive country is ſaid to be ſubject to Spain, they have only one ſmall Spaniſh town, which is ſeated near the Cape of St. Lucar; and no other uſe is made of it than as a place of refreſhment for the Manilla ſhips, and it's being the head reſidence of the miſſionaries, a number of whom have ſettled in the country, in order to propagate the Romiſh religion.

LOUISIANA was, till lately, conſidered by ſeveral of the powers of Europe as a much more extenſive country, than it is at preſent, it being repreſented by M. de Liſle, as extending on the north to Canada; on the eaſt to the provinces of Georgia, Carolina, Virginia, Penſylvania, and New York; on the ſouth to the gulph of Mexico; and on the weſt to New Mexico, New Spain, and unknown countries inhabited by the Indians. But, by the late treaty of peace, a great part of this country, containing all on the eaſt ſide of the river Miſſiſſippi, was ceded by the French to Great Britain. After which, the French parted with the remainder to the Spaniards.

THE country, at preſent termed Louiſiana, extends from the 29th to the 40th degree of north latitude; and from about the 88th to the 96th or 97th degree of weſt longitude from London. Though the ſoil is very indifferent near the mouth of the Miſſiſſippi, the country contains a great deal of excellent land, well ſtocked with a variety of trees, planted by the hand of nature. The iſle of Orleans, at the mouth of the Miſſiſſippi, is a very beautiful and fertile ſpot of ground, on which the French had a conſiderable city named New Orleans, which is the capital, and indeed the only city of Louiſiana; and here the Spaniſh governor reſides. It is fortified in a regular manner, and, according to ſome French authors, has five pariſh churches, and about ſix hundred handſome houſes, with ſtraight, agreeable ſtreets that croſs each other at right angles; but the buildings, being chiefly of wood, are not remarkable for their beauty.

THE country to which the Spaniards gave the name of Florida, and which by the late treaty of peace, was ceded to Great Britain, is a peninſula, bounded by Georgia on the north; by the Miſſiſſippi and the gulph of Mexico on the weſt; by that of Florida on the ſouth; and by the channel of Bahama and the Atlantic ocean on the eaſt; extending from Georgia to cape Florida, between the 25th degree 6 minutes and the 30th degree 58 minutes north latitude. It is divided into Eaſt and Weſt Florida, the former comprehending the coaſt waſhed by the Atlantic ocean, and the latter that near the gulph of Florida and the Miſſiſſippi.

THE air, though hot, is pure and wholſome; and the ſoil, at a little diſtance from the coaſt, where it is generally ſandy, is remarkably rich and fruitful. It abounds with all kinds of timber, particularly oak, cypreſs, palm, cedar, pines, and cheſnut trees; and ſaſſafras is in particular found in the greateſt plenty; excellent oranges, peaches, limes, mulberries, cocoas, plumbs, and many other fruits of a delicious flavour, grow here in great abundance; likewiſe olives, and vines of various ſorts are the natural produce of the country; and the land is thought to be as proper for the cultivation of the grape, as the warm countries of Europe. Among the more precious productions may be reckoned cochineal, of which there are both the wild and the cultivated, but the latter is by far the moſt valuable. It alſo abounds with cattle, wild beaſts, fowl and fiſh. Since the concluſion of the peace a great number of perſons have removed from England and other places to ſettle there.

GEORGIA received it's name from his late majeſty George II. It is ſeparated on the ſouth by the river St. John, which divides it from Eaſt Florida; it has the Atlantic ocean on the eaſt, on the north it is ſeparated from Carolina by the river Savanna; and on the weſt it borders on the low lands of the Creek Indians, and the ſouth end of the Apalachian mountains. The ſoil, air, and produce of this province much reſemble thoſe of South Carolina. But thunder and lightning frequently do great damage to the planters, by deſtroying their houſes, and killing their ſlaves and cattle. Here are a multitude of wild beaſts, birds, and poiſonous animals. But rice is ſaid to grow better here than even in Carolina, which with corn and indigo may be eſteemed at preſent it's principal commodities. They have made ſome beginnings towards cultivating the vine, and the raiſing of raw ſilk. This laſt was one of the principal views of the truſtees at the firſt ſettlement of this province; and indeed both theſe branches may hereafter become conſiderable, the climate and ſoil being found proper for them. The principal towns in Georgia are Savanna and Frederica. The former is the metropolis, and is very pleaſantly ſituated. The number of inhabitants in this province amounts to about eight thouſand whites and twenty thouſand blacks.

THE provinces of North and South Carolina, which are now two diſtinct governments, lie between the 31ſt and the 36th degrees of north latitude, and are upwards of four hundred miles in length, and near three hundred in breadth, from the coaſt to the Indian nations. They are bounded on the eaſt by the Atlantic ocean, on the ſouth by Georgia, on the weſt by the Apalachian mountains, and on the north by Virginia. The climate and ſoil of both Carolinas differ but little from thoſe of Virginia, but where they are different, it is to the advantage of Carolina, which may be conſidered as one of the fineſt climates in the world. The heat in ſummer is indeed very great, but it exceeds very little that in Virginia, and has the advantage of a milder and ſhorter winter. But, though the weather is in general ſerene, and the air healthy, yet, like all American weather, it makes ſuch quick changes, as obliges the inhabitants to obſerve more caution in their dreſs and diet than we are obliged to uſe in Europe. Thunder and lightning are here very frequent; but the hurricanes here and in the ſouthern colonies, where they are only felt, are very rare, and far from being ſo violent, as thoſe of the Weſt Indies. Part of March, all April and May, and the moſt part of June, are here inexpreſſibly temperate and agreeable; but in the three following months the heat is very intenſe, and, though the winters are ſharp, particularly when the north-weſt wind prevails, yet the cold is ſeldom ſo ſevere as to freeze any conſiderable body of water: it is chiefly felt in the mornings and evenings; for the froſt can never reſiſt the noon day's ſun, whence many tender plants flouriſh in Carolina, that will not ſtand the winters of Virginia.

WHERE the country is not cleared by our planters, it may be conſidered as a great foreſt. The trees are almoſt the ſame as thoſe produced in Virginia, and by their different ſpecies, the quality of the ſoil is eaſily known. The country near the ſea is much the worſt, but on advancing farther, it continually improves; and at the diſtance of one hundred miles from Charles Town, where the land begins to riſe into hills, the ſoil is not only extremely fertile, but the air pure and ſalubrious, and the ſummer heats much more temperate than in the flat country; for Carolina is for eighty miles from the ſea, an even plain, in which no hill, no rock, and even ſcarce a pebble is to be found. From this uniformity it muſt however want the fine effect which it's beautiful products would have by a more variegated and advantageous diſpoſition; but nothing can be imagined more delightful than the back country, and it's fruitfulneſs is almoſt incredible. The foreſts moſtly conſiſt of large trees at a conſiderable diſtance from each other; ſo that they can clear in Carolina more land in a week, than we can do in the foreſts of Europe in a month. The planters here turn their whole attention to the culture of rice, from which they reap great advantage.

VIRGINIA, which was thus called in honour of queen Elizabeth, is a very extenſive territory, it being ſituated between the 36th and 39th degrees of north latitude, and between the 74th and 80th degrees of weſt longitude; it extending about two hundred and forty miles in length from north to ſouth, and about one hundred and twenty in breadth from eaſt to weſt. It is bounded on the north by the river Potomac, which ſeparates it from Maryland; on the eaſt by the bay of Cheſepeak; on the ſouth by Carolina; and on the weſt by the Allegany mountains. Heat and cold, both here and in Maryland, are governed by the winds; the north and north-weſt winds being commonly cold and clear, but the ſouth and eaſt moiſt, hazy, and very hot. The air is dry and clear in winter, and, though the ſnow falls in great quantities, it ſeldom lies above a day or two. The changes of the weather are here ſudden and violent; their winter froſts come on without the leaſt warning; and a warm day, in the beginning of winter, is frequently ſucceeded by ſo intenſe a cold, as to freeze the rivers in one night; but here the froſts and rains, though violent, are of a ſhort continuance.

The face of the country is ſo extremely low towards the ſea, that, on your coming within fifteen fathoms ſoundings, land can ſcarcely be diſtinguiſhed from the maſthead. All this coaſt of America has one remarkable particularity, the diſtance being known by the ſoundings, which gradually diminiſh as you approach the land. The trees at firſt ſeem to riſe out of the water, affording the ſtranger a very uncommon and pleaſing view. In ſailing to Virginia or Maryland, you paſs a ſtreight between two points called the Capes of Virginia, which opens a paſſage into the bay of Cheſepeak, one of the largeſt and ſafeſt bays in the world; for it enters the country near three hundred miles from the ſouth to the north, having the eaſtern ſide of Maryland and a ſmall part of Virginia on the ſame peninſula. This bay is almoſt eighteen miles broad for a conſiderable way, and ſeven, where it is narroweſt; and through it's whole extent receives a great number of fine navigable rivers, particularly James River, York River, the Rappahannoc, and the Potomac. The laſt mentioned river is nine miles broad at it's mouth, and navigable for near two hundred miles. Towards the mouth of the rivers, the land has a moiſt and fat mold, well ſtored with oaks, poplars, pines, cedars, cypreſs, and ſweet gums. The country alſo produces great variety of evergreens. The trees grow to a prodigious height before they ſhoot into branches; and the woods, not being incumbered with ſhrubs and underwood, ſo as to hinder their being travelled through on horſeback, afford a commodious ſhade to thoſe who paſs through them. In fine the heads of the rivers afford a mixture of hills, vallies, and plains, adorned with fruit and timber trees. An author, born in Virginia, thus deſcribes the country: "Here the people "enjoy all the benefits of a warm ſun, and by the "ſhady groves are protected from it's inconveni- "ences. Here all their ſenſes are entertained "with an endleſs ſucceſſion of native pleaſures. "Their eyes are raviſhed with the beauties of "nature: their ears ſerenaded with the perpetual "murmur of brooks, and the thorough baſe, "which the wind plays, when it wantons through "the trees; the merry birds join their pleaſing "notes to this rural concert, eſpecially the mock- "birds, who love ſociety ſo well, that, whenever "they ſee mankind, they will perch upon a twig "very near them, and ſing the ſweeteſt wild airs "in the world; but, what is moſt remarkable in "theſe melodious animals, they will frequently "fly at ſmall diſtances before a traveller, warb- "ling out their notes for ſeveral miles, and by "their muſic make a man forget the fatigues of "his journey. The taſte of the inhabitants is "regaled with the moſt delicious fruits, which "they have without art, in great variety and per- "fection; and then their ſmell is refreſhed with "an eternal fragrancy of flowers and ſweets; "with which nature perfumes and adorns the "woods almoſt the whole year round. Have "you pleaſure in a garden? All things thrive in "it moſt ſurprizingly; you cannot walk by a bed "of flowers, but, beſides the entertainment of their "beauty, your eyes will be ſaluted with the "charming colours of the humming-bird, which "revels among the flowers, and ſucks off the "dew and honey from their tender leaves, on "which it only feeds". This country produces all ſorts of Engliſh grain; but the cultivation of tobacco employs almoſt the whole attention of the inhabitants.

MARYLAND is bounded on the north by Penſilvania and Delaware bay; on the eaſt by the Atlantic ocean; on the ſouth by Virginia; and on the weſt by the Apalachian mountains. It is ſeated between the 38th and 40th degrees of north latitude, and between the 44th and 48th degrees of weſt longitude, extending about one hundred and forty miles in length from north to ſouth, but not ſo much in breadth. This province is divided into the eaſtern and weſtern diviſions by Cheſepeak bay. Though in ſummer the air is exceſſive hot, and in winter very cold, while the north wind blows, yet their heats are ſeldom troubleſome, and that only in a perfect calm, which ſeldom happens above two or three days in the year; and then only a few hours at a time, when it is rendered very tolerable by their cool ſhades, their open and airy rooms, arbors and grottoes. The weather, in ſpring and autumn, is as pleaſant as can be wiſhed: even the winters do not laſt above three or four months, and in theſe they have ſeldom one month's bad weather. That part of the country which lies on the bays of the ſea and the mouths of the rivers, is hot and moiſt; but, higher up in the country, the air is more agreeable. However, in the heat of ſummer they have dreadful thunder; but, as it cools and refreſhes the air, the people rather wiſh for, than fear it.

THE face of the country is divided into low lands next the ſea, the hilly country towards the heads of the rivers, and the Allegany or Apalachian mountains, which riſe to a great height, and extend from the north-eaſt to the ſouth-weſt, parallel to the Atlantic ocean. The ſoil here is as fruitful as in any other country, the principal part being a large plain interſperſed with hills of ſo eaſy an aſcent, and of ſuch a moderate height, that they rather ſeem an artificial, than a natural ornament. Abundance of rivers and brooks diffuſe fertility through the country, and every tree, plant, and grain that grows in Virginia, thrives as well here. The number of the inhabitants is computed at about eighty-five thouſand whites, and twenty-five thouſand negro ſlaves. The trade chiefly conſiſts in tobacco, and in making tobacco caſks and pipe ſtaves for exportation.

PENSYLVANIA, which is one of the fineſt countries in the world, is ſituated between the 39th and 42d degrees of north latitude, and between the 72d and 78th degrees of weſt longitude, it being bounded on the north-eaſt by the Jerſeys, on the north by the lands of the Five Nations, on the weſt by the Apalachian mountains, and by Maryland on the ſouth; it extending about three hundred and thirty miles in length, and two hundred in breadth. It received it's name, which ſignifies Penn's country, from Mr. Penn, the celebrated Quaker, whoſe humanity and wiſdom, as a planter and legiſlator, render him an honour to mankind. The air is here clear, ſweet, and ſerene; the ſpring laſts from March till June, during which the weather is extremely pleaſant. In the ſummer, which laſts the three following months, the heats are very great, but alleviated by cool breezes, that render them very tolerable. Autumn begins after the 20th of October, and laſts till the beginning of December; after which froſty weather is very common; but, in ſuch ſeaſons, the air is dry, clear, and agreeable.

THIS province is remarkable for it's fertility. It abounds with all ſorts of corn, as wheat, barley, oats, rye, peaſe, beans, Indian corn, and likewiſe hemp and flax, ſnakeroot, ſarſaparilla, and many other medicinal woods and roots. A variety of the fineſt fruits grow wild in the woods; it's foreſts are well ſtored with wild game, as it's paſtures are with flocks and herds; and a greater quantity of iron is manufactured in this province than in any other on the continent. It's trade is extenſive and valuable, no leſs than three hundred ſail being annually cleared out from Philadelphia to Europe, the Weſt-Indies, &c. Their trade into the interior country with the Indians is likewiſe very extenſive and lucrative. The chief articles exported from this province are wheat, flour, and all other ſorts of grain, beef, pork, ſalted and barrelled fiſh, horſes, furs, and ſkins, with pig and bar iron, hogſhead and pipe ſtaves, hoops, furs, peltry, beef, pork, flax-ſeed, &c.

The intire province of New-Jerſey, containing the two Jerſeys, which are divided into eaſt and weſt, are ſituated between New York and Penſylvania in a triangular form, and is bounded on the north by Hudſon's river, which ſeparates it from the province of New York; on the eaſt by the Atlantic ocean, which waſhes it's coaſt from the mouth of Hudſon's river to that of Delaware river; and on the ſouthward and weſtward by Penſylvania. It lies between the 39th and 40th degrees north latitude, extending in length on the ſea-coaſt, and along Hudſon's river, above one hundred and twenty miles; and ſixty in breadth from eaſt to weſt.

The ſoil is uniform, and produces all ſorts of Engliſh corn, with the various fruits proper to the climate; and is ſaid to produce the beſt cyder of any place on the continent. The timber is tall, and the oaks are eſteemed for ſhip-building. It has valuable mines of copper and iron; and great quantities of the latter are worked. The lands are chiefly taken up and improved, on which account they have but little wild game. The inhabitants however labour under a conſiderable diſadvantage, which is the uncertainty of their titles, and the continual diſputes and law-ſuits, which, on this account, ariſe among them. They have, beſides, no conſiderable foreign trade of their own, but exchange their commodities for foreign goods with Penſylvania and New York, particularly wheat, flour, timber, copper-ore, pig and bar iron, and black cattle, which they drive in great numbers into Penſylvania, on whoſe rich paſtures they are generally grazed for ſome time before they are ſent to market and killed.

New York is ſituated between the 40th and 44th degrees of north latitude, and between the 70th and 76th degrees of weſt longitude, it being bounded on the eaſt by New England; on the north by Canada; on the north-weſt and weſt by the lands of the Five Nations, and part of Penſylvania; and on the ſouth-weſt and ſouth by the Jerſeys and the Atlantic ocean, extending two hundred miles in length from north to ſouth, and only about twenty-five in breadth, particularly between the colony of Connecticut and Jerſey.

The ſoil of this province is generally very pleaſant and fertile, producing in great abundance all ſorts of corn and fruit common to the climate, particularly wheat, one buſhel of which is ſaid to have produced here an hundred. Many fine large plains on the banks of it's extended rivers are remarkably fruitful, and there are ſeveral pleaſant and fruitful iſlands, which form a part of this province, of which Long Iſland is the moſt worthy of notice. This is about a hundred and fifty miles in length, and in ſome places twenty; but generally about twelve miles in breadth. Though the middle of it is ſomewhat barren, both ends have a moſt excellent ſoil, improved to as great advantage as any lands in America; producing corn and fruit to great perfection, and abounding in horſes, cows, ſheep, and ſwine, more than any other part of the province. In the midſt of the iſland is a celebrated plain ſixteen miles long and four broad, called Saliſbury Plain, from it's having a fine turf, like that of Saliſbury Plain in England; and, as the iſland produces an excellent breed of horſes, they have races here every ſeaſon, to which the gentlemen of New England and New York reſort. The ſituation of this province is extremely happy for trade, it having a ſafe and convenient harbour, acceſſible three different ways for ſhips of common burden. There are alſo eaſy conveyances to and from it by water, from the rivers and lakes, except a few carrying-places, both to Quebec and Montreal on the northward, and to the great lakes Erie and Ontario to the weſtward, for ſix hundred miles; and, upon the ſea, it has not only the advantage of it's coaſt, but alſo of Connecticut and the Jerſeys, their trade in a great meaſure centering here, where they exchange their ſeveral commodities for foreign goods. Hence the commodities, exported from New York, are thoſe of the three governments, ſuch as wheat, flour, beef, pork, furs, and caſtor in great abundance; ſtaves, plank, lumber, flax-ſeed, pig and bar iron, and ſome copper; and a large bounty is given by the province to encourage the raiſing of hemp.

New England, the moſt powerful colony in North America, is ſeated between the 41ſt and 43d degrees 50 minutes north latitude, and between the 64th degree 40 minutes and the 73d degree weſt longitude; it being bounded on the north-eaſt and eaſt by Nova Scotia and the bay of

Fundy; on the north-weſt by Canada; on the ſouth-weſt by the province of New York; on the ſouth by the ſound; and on the ſouth-eaſt by the Atlantic ocean, extending from Kenebec river to the ſouth-eaſt boundary of New York three hundred and thirty miles; and, from Cape Cod to the north-eaſt bounds of New York, it is one hundred and ninety miles broad.

THIS extenſive country is divided into four diſtinct diſtricts or governments, the colony of Connecticut, that of Rhode Iſland, the province of New Hampſhire, and the province of Main, now called the county of York, which is under the juriſdiction of the province of Maſſachuſets bay.

WITH reſpect to the climate of New England in general, they enjoy a warmer ſummer than we, and this ſeaſon is uſually acompanied, for two months together, with a clear ſky, which renders the country extremely healthſul, ſo that no part of our plantations is more agreeable to the conſtitutions of the Engliſh; yet the winters of New England are much ſeverer than ours, and, though it lies conſiderably farther to the ſouth, the froſts are not only much ſharper than with us, but continue longer.

THE land next the ſea is generally low, and in ſome parts marſhy; but farther up it riſes into hills, and on the north-eaſt is mountainous and rocky. The country abounds with mines of excellent iron, and ſome of copper; in the woods and ſwamps, is plenty of good timber, from which are produced pitch, tar, roſin, and turpentine; and more ſhips are built in New England, than in all the other parts of America. Notwithſtanding the ſeverity of the winter, it abounds with fruit-trees, ſo that a planter may eaſily make a hundred hogſheads of cyder in a ſeaſon. There are here raiſed as good hemp and flax as any in the Baltic; and their roots, as turnips, parſnips, carrots, and radiſhes, though their ſeeds came originally from hence, are much larger and richer than ours. The peaches grow upon ſtandards, and have a finer flavour than thoſe of England; but nothing is ſo much planted here as maize, or Indian corn, of which we ſhall give a particular account in treating of the vegetables of North America. There are here alſo a great variety of other plants different from thoſe of Europe; and, though the ſoil is extremely various, the inhabitants, by means of their trade, and the produce of different parts of the country, enjoy all the neceſſaries of life in the greateſt profuſion, with moſt of it's luxuries.

NOVA SCOTIA, the moſt eaſtern part of the continent of America, is ſituated between the 44th and 49th degrees north latitude, and between the 60th degree 15 minutes and the 69th degree weſt longitude, it being bounded on the eaſt by the gulph of St. Lawrence and the ſtreights of Canſo, which ſeparate it from Cape Breton; on the ſouth by the Atlantic ocean; on the weſt by the bay of Fundy and the province of Main belonging to Maſſachuſets bay; and on the northward by the river of St. Lawrence, which divides it from Canada.

NOVA SCOTIA is, in general, a fine country, though the winters are very ſevere, and the ſnow lies deep on the ground; but, during that ſeaſon, the air is generally clear, with a bright ſunſhine and azure ſky; but the ſummer is hotter than in England.

THE ſoil of this province is alſo various. In ſome places it is barren, and in others extremely fertile and pleaſant, particularly round the bay of Fundy, and on the rivers which fall into it. The eminences are alſo very pleaſant and fruitful, producing wheat, rye, Indian corn, peaſe, beans, hemp, and flax, and ſeveral kinds of fruit in great perfection; among which gooſeberries, ſtrawberries and raſberries, grow wild in the woods, and ſeveral parts yield fine timber fit for building ſhips. It abounds with all the neceſſaries of life, particularly with a great number of game, wild fowl, and fiſh.

CANADA, or the province of Quebec, which Great Britain conquered from France in the late war, and was ſecured in the poſſeſſion of by the treaty of peace which followed, is the largeſt of any of our provinces on the continent. Quebec, the capital, is ſeated near the centre in the 46th degree 45 minutes north latitude, and in the 69th degree 48 minutes weſt longitude. It is bounded on the north-eaſt by the gulph of St. Lawrence and St. John's river; on the ſouth-weſt by lands inhabited by the Indians, which are frequently included in this province; on the ſouthward by the provinces of Nova Scotia, New England, and New York; and on the north-weſtward by lands claimed by the Indians; extending about five hundred miles in length from the north-eaſt to the ſouth-weſt, and upwards of two hundred miles in breadth. The French, under the name of Canada, comprehended a much larger territory, taking into their claim great part of the New England provinces, and of thoſe of Nova Scotia and New York, and extending it northward to Hudſon's bay; to the weſt as far as the Pacific ocean; and to the ſouthward to the gulph of Mexico.

THE climate is cold and the winter long and tedious, eſpecially in the north-eaſt parts of the province; yet the ſoil is, in general, very good, and in many parts both pleaſant and fertile, producing moſt kinds of Engliſh grain and vegetables in great abundance. The ſummers of Canada are exceeding pleaſant, and we are told have ſo happy an effect upon the ſoil, that the farmer uſually reaps his corn in ſixteen weeks from the time of ſowing the ſeed. The meadow grounds, which are well watered, yield excellent graſs, and breed vaſt quantities of large and ſmall cattle. It affords very fine timber, and the mountains abound with coals. It is remarkable for it's rivers and it's lakes of a prodigious ſize.

CAVES, LAKES, CATARACTS, &c.

A Traveller gives us an account in the Philoſophical Tranſactions of a remarkable cave ſome leagues to the north-weſt of Mexico, gilded all over with a ſort of leaf-gold, which had deluded many Spaniards by it's promiſing colour, for they could never reduce it into a body, either by quickſilver or fuſion. Our author went thither one morning with an Indian for his guide, and found it's ſituation was pretty high, and in a place very proper for the generation of metals. As he entered into it, the light of the candle ſoon diſcovered on all ſides, but eſpecially over his head, a glittering canopy of theſe mineral leaves; at which he greedily ſnatching, there fell down a great lump of ſand, that not only put out his candle, but almoſt blinded him: and, calling aloud to his Indian, who ſtood at the entrance of the cave, as being afraid of ſpirits and hobgoblins, it occaſioned ſuch thundering and redoubled echoes, that the poor fellow, imagining he had been wreſtling with ſome infernal ghoſts, ſoon quitted his ſtation, and thereby left a free paſſage for ſome rays of light to enter, and ſerve him for a better guide. Our author's ſight was ſomewhat affected by the corroſive acrimony of the mineral duſt; but, having relighted his candle, he proceeded in the cave, heaped together a quantity of the mineral mixed with ſand, and ſcraped off from the ſurface of the earth ſome of the glittering leaves, none of which exceeded the breadth of a man's nail, but with the leaſt touch were divided into many leſſer ſpangles, and with a little rubbing they left his hand gilded all over.—The chymical experiments this traveller made with the ſand, it is not to our purpoſe to relate.

On the weſtern coaſt of Mexico there is a vaſt hollow rock, which, having a large hole at the top, makes a frightful noiſe at every ſurge of the ſea, and ſometimes ſpouts up water, like a whale, to a prodigious height.

It is reported of the lake of Mexico, that it has two ſorts of water, one part of it being freſh and abounding with fiſh, inſomuch that the fiſhery brings in to the government above twenty thouſand crowns per annum; and the other part ſalt, and ebbing and flowing like the ſea. The freſh water is ſaid to be uſually calm, but the ſalt generally boiſterous, and to breed no fiſh. It is added, that in the middle of this lake there is a rock, from whence iſſues a conſiderable ſtream of hot water.

The large lakes of Canada deſerve to be mentioned, the principal of which are five in number, and are ſometimes called ſeas, on account of their extent. That called the Upper Lake, or Lake Superior, is ſaid to be two thouſand miles in circumference, and very deep, except near the weſt end where are ſeveral iſlands, eſpecially one near threeſcore miles in compaſs, wherein is ſaid to be a mine of pure copper, the ore affording three-fifths of fine metal, without any preparation beſides melting. The banks of this lake, to the north, ſouth, and eaſt, are in ſome places very high and ſteep, they being more than two hundred feet above the ſurface of the water.—The other lakes, though very large, are not equal to this in dimenſions.

In the river St. Lawrence, where it forms a communication between two of theſe lakes, there is one of the moſt ſurpriſing cataracts or falls of water yet diſcovered in the world. Father Hennepin, a French miſſionary among the Canada Indians bordering on it's banks, has deſcribed this prodigious caſcade as falling down a precipice a hundred fathoms high, which is ſix hundred feet; but Mr. Dudley has publiſhed an account of this cataract, taken at Albany in 1721, from Mr. Boraſſaw, a native of Canada, which perhaps comes nearer the truth. That gentleman ſays that, the governor of Canada having ordered his own ſon with three other officers to ſurvey the Niagara, and take the exact height of the cataract, they accordingly did ſo with a ſtone of half a hundred weight tied to a large cod-line, and found it upon a perpendicular no more than twenty-ſix fathoms. Upon Mr. Dudley's objecting Hennepin's account of this cataract to Mr. Boraſſaw, he replied, that indeed every body had depended upon it as right till the late ſurvey; and he acknowledged that below the cataract for a conſiderable way there were a great many ſmall ledges of rocks acroſs the river, which gradually leſſened till they came to a level; ſo that, if all the deſcents were put together, he did not know but the difference of the water above the falls, and the level below, might come up to Father Hennepin's account: but the cataract, properly ſo called, is no more than twenty-ſix fathoms, or a hundred and fifty-ſix feet; which is a prodigious thing, and what the world cannot parallel, conſidering the largeneſs of the river, which, ſtreightened as it is in that part, is near a quarter of an Engliſh mile broad, and very deep water. Both above and below theſe falls the river is much wider, and from below there is no coming nearer them by water than about ſix Engliſh miles, the torrent is ſo rapid and the whirpools ſo terrible.

It has been alledged that this cataract makes ſuch a prodigious noiſe, that people cannot hear each other ſpeak at the diſtance of ſome miles from it; but M. Boraſſaw affirms, that they may converſe together cloſe by it: and it has been alſo poſitively aſſerted, that the ſhoot of the river, when it comes to the precipice, was with ſuch a mighty force, that a man and horſe might go under it without being wet; but this M. Boraſſaw likewiſe denies, and ſays that the water falls in a manner directly down. He farther obſerves, that the miſt or ſhower which the falls occaſion is ſo extraordinary as to be ſeen at five leagues diſtance, and riſes as high as the common clouds. In this miſt, when the ſun ſhines, there is always a glorious rainbow.

What are called the great lohoes falls of the Mohawk river, have alſo a ſurpriſing appearance. The river is near a quarter of a mile broad, and the water, precipitating itſelf from ſeveral rocks which project from the reſt, falls down on every ſide them in torrents, and, being broken near the bottom by many ſeparate crags, riſes in a white froth. The deſcent is here ſaid to be about ſeventy feet, in which height are probably included the ſteep deſcents juſt below the above disjointed precipice; from whence alſo riſes a miſty cloud, that deſcends like ſmall rain, and exhibits, when the ſun ſhines, a beautiful rainbow *, that moves as the ſpectator moves, according to the angle of viſion.

As to rivers, the northern part of America abounds with large ones, of which it is not our buſineſs to enter into a detail, but ſhall give a brief account of the two moſt conſiderable, which are thoſe of Canada or St. Lawrence, and Miſſiſſippi. The river of St. Lawrence (a name given it by the French) is the largeſt in North America, and inferior to few in the world, it being computed to be about thirty leagues broad at the mouth, and two hundred fathoms deep: it takes it riſe from a ridge of mountains to the north of lake Nippiſſong, which is ſituated to the north-weſt of lake Superior, and falls into the gulph of St Lawrence at the iſle of Anticoſti, having received many other rivers in it's courſe, which is generally reckoned to be about eight hundred leagues: but the length of it's courſe cannot be exactly determined; and, as to it's navigation, authors give us ſuch different accounts as are not eaſy to reconcile, ſome repreſenting it as ſafe, eaſy, and pleaſant; and others as ſo extremely difficult and dangerous, that the moſt experienced pilots have much ado to eſcape the many dangers they are expoſed to, from the ſandy banks, rocks, and ſhoals along the north ſhore; but however the river in general is very deep, nor is it's navigation interrupted by cataracts, till a great

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* Mr. Smith took notice of the like phænomenon at the cataract of Narva in Livonia. We alſo read of marine rainbows ſometimes obſerved in a much agitated ſea, when the wind ſweeps away the tops of the waves, and carries them aloft, ſo that the ſun's rays falling on them are refracted, &c. as in a common ſhower, and paint the colours of the bow, but leſs diſtinct and of leſs duration.

great way above Quebec, which is more than three hundred miles from the ſea. There are many pleaſant iſlands in it, ſome of which are inhabited, well cultivated, and fertile.

THE Miſſiſſippi, or Meſſaſippi, is another very large river, which runs from north to ſouth, upwards of three thouſand miles. It's ſource is a lake of conſiderable bigneſs, named the Red lake; and, after it has received many rivers in it's courſe, among which is the Ohio, it falls into the gulph of Mexico.

FOSSILS.

THE Spaniſh dominions in North America abound with mines of gold and ſilver, eſpecially the latter, of which precious metal it is ſaid there are no leſs than a thouſand mines in the Mexican empire; but many of theſe are not wrought, for want of native Spaniards and Negroes. Mr. Coxe affirms, that Carolana, or Louiſiana, has copper in abundance, and ſo fine that it is frequently found on the ſurface in pieces very pure without melting; and thoſe who have tried the ore ſay, that by the common methods it yields above forty per cent. The lead-ore in that country affords ſixty per cent. and has been already diſcovered in quantities more than ſufficient for common uſe. Iron ore is alſo found plentifully in many places near the ſurface of the earth, from which a metal is extracted little inferior to ſteel in goodneſs. Some mines of quickſilver have likewiſe been diſcovered, and our author thinks many more might be found if proper ſearch were made after them. The mineral from whence the quickſilver is obtained is of a ſcarlet or purple colour, which the natives make no other uſe of than to paint their faces and bodies therewith in time of war, or on occaſions of feſtivals and rejoicings. This ore is broken and diſtilled in earthen pots, the necks whereof are put into others almoſt full of water, which laſt are placed in the ground; and, being thus ſet in rows almoſt contiguous, a fire is made over them with ſmall bruſh-wood, which drives the quickſilver out of the ore into the water. Three or four men will tend ſome thouſands of theſe pots. The great trouble is in digging; but all the expence does not amount to a tenth part of the value of the produce.

To make it appear probable that both gold and ſilver might be found in Louiſiana, Mr. Coxe gives us ſome accounts he received from perſons of credit, and particularly by letters from New Jerſey, written by one well ſkilled in the refining of metals, ſignifying, that for ſeveral years ſucceſſively a fellow took a fancy to ramble with the Indians to the other ſide of the mountains on the back of New York to the country we are ſpeaking of, and always brought home with him a bag, as heavy as he could well carry, of duſt, or rather ſmall particles of divers ſorts of metals, very ponderous. When melted, it appeared to be a mixture of metals, to which at firſt they could aſſign no denomination; but by repeated trials they found it contained lead, copper, and when refined, above a third part of ſilver and gold. Great pains were taken to bring this fellow to diſcover where he got this treaſure, which ſerved him only to drink and ſot till he went on another expedition; but nothing could prevail upon him to declare any more than this, that, about three hundred leagues ſouth-weſt of Jerſey, at a certain ſeaſon of the year, there fell great torrents of water from the mountains, and, when they ceaſed, the Indians waſhed the ſand or earth at ſome diſtance below thoſe falls, and at the bottom remained that medley of metals.—Our author farther obſerves, that there are great quantities of orpiment and ſandarach in divers parts of this province; and writers on metals and minerals affirm, that, they not only contain gold, but where they are found, they are generally the covering of mines of gold or ſilver.

As to the gems of Louiſiana, all that Mr. Coxe knows of are amethyſts, of which there are ſome very fine and large; and turquoiſes, thought to be as fine and large as any in the world. There is alſo an account of lapis lazuli, which, according to thoſe ſkilled in mines, is another indication that gold is at no great diſtance.—But we need ſay no more of gems or metals in this place, having ſpoken of them ſufficiently, as they occurred in the courſe of this work.

UNDER this head we may take notice of the filtre-ſtone of Mexico, though perhaps it ſhould rather be referred to the vegetable kingdom. It is ſaid to grow under water on the rocks in ſome parts of the gulph of Mexico, and to harden and petrify ſpontaneouſly in the air; but Dr. Vater, who has given ſome account of it in the Philoſophical Tranſactions, does not take upon him to determine either it's origin or the manner of it's growth, both appearing to be very ſuſpicious. It has obtained the name of filtre from it's poroſity, whereby it lets liquors paſs through it; and for this reaſon pots and mortars are made from large pieces of it, to ſtrain liquors, particularly water to drink; for it is thought that water filtrated through this ſtone is thereby freed from all it's impurities, and becomes more wholſome. This is the reaſon, ſays the doctor, that theſe ſtones are highly valued in Japan, and ſold at the price of gold; becauſe the Japaneſe, who know nothing of the ſtone or other diſorders in the kidneys, and who prefer health far before all other bleſſings, think the filtration of their drink contributes to the prolonging of life. But, according to Le Clerc and other writers, theſe tophaceous ſtones are not confined to Mexico, but, dug up in ſeveral parts of Europe; and our author had a choice collection of foſſils preſented to him by Dr. Ehrhart of Memmingen, in which there was a tophus peculiarly porous, found about that city, which would ſtrongly imbibe water, as ſoon as applied to it's ſurface. However, whether the Mexican filtre be taken out of the ſea, or dug out of the earth, Dr. Vater does not pretend to determine, as has been already intimated.

With reſpect to the virtue aſcribed to the Mexican filtre-ſtone, our author, from ſeveral obſervations and experiments, makes it evident, that no ſtone-filtres are able to depurate water, and ſeparate the ſaline earthy and mineral impurities therein diſſolved: yet he does not deny, but that muddy and ſlimy waters may by ſtraining through ſuch ſtones become more clear and pellucid; becauſe theſe impurities do not diſſolve in the water, or intimately incorporate with it, but only float therein. Theſe excepted, no other waters can be made purer, as the doctor learnt from repeated experiments, made both by the filtre of Holland, the tophus of hot baths, and common ſtone, on ſeveral kinds of river and ſpring water; for, having examined their weight before and after filtration, he found little or no difference. How happy therefore, obſerves the doctor, are the countries to which Providence has given limpid and wholſome ſprings of water, which require no ſuch filtres! But, as for thoſe that are deprived of this bleſſing, the beſt they can do is to uſe rain-water, which by diſtillation is freed from all it's impurities.

We have already in ſeveral places taken notice of the extraneous foſſils that are found in different parts of the world, and particularly of the bed of oyſter-ſhells near Reading in Berkſhire; but this ſeems trifling, compared to the accounts we have of the vaſt quantities of theſe ſhells found in Virginia, where for many miles together the earth is intermixed with them to the depth of ſeveral yards. In ſome places the ſhells lie cloſely bedded together, and look like the veins of a rock, of which ſome are three or four yards thick, and as hard as free-ſtone. Of theſe rocks of oyſter-ſhells, which are not ſo much petrified, they burn and make all their lime; and in the looſer banks of ſhells and earth there are often found perfect teeth petrified, ſome of which are two or three inches long, and above an inch broad, the part that one may ſuppoſe to have grown out of the jaw being poliſhed, and almoſt as black as jet. The back-bones and ribs of whales (according to Mr. Clayton) have alſo been dug up many miles diſtant from the ſea.— But this ſubject having been ſufficiently handled in the preceding parts of this work, we ſhall not enlarge upon it here. We may add, however, one particular relating to Virginia which is very remarkable, viz. that, from the ſea-coaſt for a hundred miles up into the country, there is ſcarce a ſtone to be ſeen, except here and there ſome rocks of iron-ore; ſo that they ride their horſes without ſhoeing them, and, the country and climate being dry, their hoofs are harder than thoſe of our horſes in England. Inſtead of ſtones they find a clay, of which they make very fine bricks; and it is to be obſerved, that, at the water-falls from the mountains, there are ſtones enough of different kinds, fit for paving and other uſes. The hills likewiſe afford quarries of ſlate and of a kind of free-ſtone; and they have alſo a ſort of ſhining pebbles, not unlike kerry-ſtones, which, though generally ſoft, are ſaid to harden by the air, and, when poliſhed, are extremely beautiful. As to mines, they have ſeveral of good iron in divers parts of the country: but we need not dwell longer on a ſubject which affords us nothing very remarkable, and therefore ſhall proceed to that of

VEGETABLES.

THE ancients ſeem to have been acquainted with only one ſpecies of the aloe, but the late travels into Aſia, Africa ,and America, have occaſioned the diſcovery of at leaſt forty ſorts unknown to antiquity; nay, Mr. Bradley aſſures, us he has ſeen above ſixty ſeveral kinds in the phyſic-garden at Amſterdam. Be this as it will, our preſent buſineſs is chiefly with what we call the American aloe, which is one of the moſt curious and remarkable plants of all the numerous ſpecies. Almoſt every one knows, that the aloe-plant has very thick green leaves, broad towards the root and tapering to a point, ſtiff and prickly, and yielding a kind of cotton, whereof laces may be made. From the midſt of the leaves ariſes a ſtem, which bears the flowers and fruit. The flowers grow at the ends of branches that ſhoot out oppoſite to each other; and each conſiſts but of one leaf, cut into ſix ſegments at the top like the hyacinth. The fruit is oblong and cylindrical, divided into three cells, in which are contained flat, and for the moſt part, ſemicircular ſeeds. Moſt of the African ſorts produce flowers with us annually, when grown to a ſufficient ſize; but the American aloe, which moſt commonly produces it's flower-ſtem immediately from the center of the plant, ſeldom flowers till it be of a great age, and this but once during the life of the plant; ſo that to have one flower in England is reckoned a curioſity, and generally draws a vaſt number of ſpectators. It is obſerved, that, when the flower-ſtem, which is uſually large and grows to a great height, begins to ſhoot from the middle of the plant, it draws all the nouriſhment from the leaves; ſo that, as the ſtem advances, the leaves decay; and when the flowers are full blown, ſcarce any of the leaves remain alive: but, whenever this happens, the old root ſends forth numerous off-ſets; and it is only at this time that ſome of theſe aloes can be propagated.

DR. MERRET tells us, that he had an American aloe, conſiſting of eleven leaves, which was tied about with a red dry cloth, and hung up, without oil, in his kitchen. In a whole year he obſerved it loſt two ounces, three drams, and twenty-four grains of it's weight. The next year being drier and hotter, it loſt upwards of three ounces; and more than double in the ſix colder than in the ſix hotter months. He kept it about five years, and it waſted much in the ſame proportion, till at laſt, hanging it in a cold garret, it died. The doctor took notice, that every year two of the greater leaves firſt changed colour and withered, and every ſpring there ſucceeded two freſh and green ones, of the ſize of the preceding; from whence he thinks it may be probably inferred, that there is a circulation of the nutritious juice in this plant; for how is it poſſible that the roots, continuing firm and ſolid as at firſt, ſhould ſupply ſo much nouriſhment, unleſs the ſaid juice returned from the old decayed leaves into the root, and ſo produced new ones?

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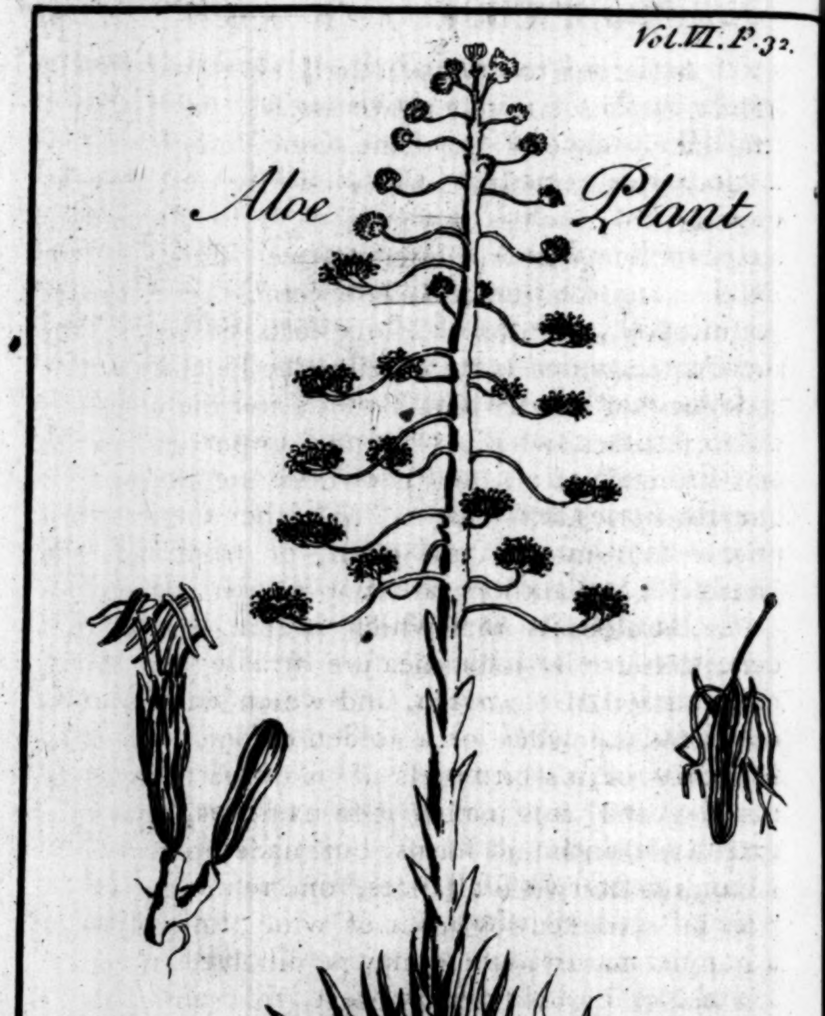

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It is proper to obſerve, that, of all the ſpecies of aloes, there are not above twelve that yield the inſpiſſated juice of the ſame name, much uſed as a purgative remedy. This juice is obtained by cutting the leaves of the plant, from whence it oozes either ſpontaneouſly or by preſſing, and is expoſed to the ſun till it becomes of a proper conſiſtence. There are three ſorts of aloes, the ſuccotrine, which is the pureſt; the hepatic, which is ſomewhat coarſer and harder; and the caballine or horſe-aloes, which is the moſt impure, blackeſt, and ſtrongeſt of all, and is of little uſe amongſt us but for horſes and cattle. Whether theſe are all procured from the ſame plant, or from different ſpecies of it, authors are not rightly agreed.—The beſt aloes is that which is pinguious, of a dark colour, in ſome meaſure friable, it's ſmell reſembling that of myrrh, and which when pounded yields a powder of a golden colour. In conſequence of it's bitterneſs it is called the gall of nature; and this makes it ſo nauſeous, that it is rarely uſed in liquid forms, but made up into pills. It conſiſts of two ſubſtances, one reſinous, which may be extracted by ſpirit of wine; the other of a gummy nature, which may be diſſolved in water. It's balſamic quality is ſo great, that animalcules may be preſerved in it for ages; and upon this account it is uſed in embalming human bodies. It's cathartic virtue is beſt employed in watery, cold, mucous conſtitutions, and ſuch as are diſpoſed to the generation of acids. Againſt worms it is uſed both internally, and externally, and it is reckoned efficacious in promoting the menſes. The ſuccotrine aloes is preferable for internal uſes, and the hepatic for external.

Amongst the vegetables of America, one of the firſt we ought to mention is the celebrated plant we call tobacco *, which is now grown into ſuch general uſe in Europe, and makes one of the moſt profitable branches of the Engliſh commerce. The Virginia tobacco, eſpecially the ſweet-ſcented, which grows on York River, is reckoned the beſt in the world, and is generally vended in England for home conſumption; but the hotter ſorts, either of Virginia or Maryland, turn to as good account, being demanded in Holland, Denmark, Sweden, and Germany. Mr. Clayton ſays, that the ſweet-ſcented tobacco, which grows on ſandy land, is beſt for ſmoaking whilſt new, or only two or three years old; but, if the ſtiff land tobacco, which is generally of a good ſubſtance, be kept five or ſix years, it will much exceed the former.

THE manner of planting and ordering tobacco is this: The ſeed is firſt ſown in beds of fine mould, and, when the plants are riſen to a convenient height, they are tranſplanted to little hills three or four feet from each other, ſomewhat in the manner of hop-grounds. This is done about the beginning of May, from which time the hills are kept continually weeded, and, when the plants have put forth ſuch a number of leaves as they think the ſoil will nouriſh to a ſufficient ſubſtance and largeneſs, they take off the top of each plant,

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* This plant has different names among the Indians in different parts of America, as petun, picelt, yoli, &c. The French, at it's firſt introduction amongſt them, gave it various names, as nicotiana, from John Nicot, then embaſſador of Francis II. in Portugal, who brought ſome of it with him from Liſbon, and preſented it to a grand prior of the houſe of Lorrain, and to queen Catharine de Medicis, whence it was alſo called queen's herb, and grand prior's herb. They alſo gave it other names, which are now all reduced to the original name tobacco, given it by Hernandez de Toledo, who firſt ſent it into Spain and Portugal, about the year 1560.

which after that grows no higher. If the ground be rich, they let a plant put forth twelve or fifteen leaves before they top it; if poor, not above nine or ten; and ſo in proportion to the goodneſs of the ſoil. The ſuckers which the plant puts forth between the leaves are taken off once a week till it comes to perfection, which it does in Auguſt. Then in dry weather, when there is a gentle breeze of wind, they cut down what is ripe, letting it lie three or four hours on the ground; after which they carry it on their ſhoulders to the tobacco-houſes, or ſheds, where a peg is driven into the ſtalk of each plant; and by theſe pegs the plants are hung up to dry, ſo near each other that they juſt touch. Thus they let them hang for five or ſix weeks, till ſuch time as the ſtem in the middle of the leaf will break in bending it; and, when the air has ſo moiſtened the leaves that they may be handled without breaking, they ſtrip them off the ſtalks, tie them in little bundles, and pack them up in hogſheads for exportation. The bundles deſigned for twiſt-tobacco are ſteeped in ſea-water, or, for want of that, in common water, then twiſted in the manner of ropes, and the twiſts formed into rolls by winding them with a kind of mill round a ſtick; and in this condition they are imported into Europe.

Mr. Clayton informs us, that ſometimes they are forced to plant their hills twice or thrice over, on account of an earth-worm which eats the root; and, when the plants are well grown, they often ſuffer damage by a worm called a horn-worm, which is bred upon the leaves, and, if not carefully taken off, will ſpoil a whole crop. The plants, when young, are alſo ſometimes deſtroyed by a ſmall fly, which breeds upon them in gleamy weather; and they are likewiſe ſubject to a diſtemper they call firing, which happens when very hot weather ſuddenly follows a wet and cold ſeaſon, at which time the leaves of the young plants turn brown and are dried to powder. Another fault is when the leaves do not ſpread and grow large, but rather ſpire upwards and grow tall; and ſuch plants as theſe they call Frenchmen.

TOBACCO is very much uſed amongſt us, either by ſmoaking it in a pipe, by way of ſnuff, or by chewing it in the mouth; and it is ſometimes put up the noſe in little pellets, where it is found to produce good effects, to draw a deal of water or pituita, to unload the head, reſolve catarrhs, and cauſe a free reſpiration; but this way of taking tobacco is ſaid to weaken the ſight. When taken in great quantities in the way of ſnuff, it is found to prejudice the ſmelling, and greatly diminiſhes the appetite. That taken in the way of ſmoke dries and damages the brain; inſomuch that we read of a perſon who through exceſs of ſmoaking had dried his brain to that degree, that after his death there was nothing found in his ſkull but a little black lump conſiſting of merē membranes. Indeed ſmoaking and chewing of tobacco have been eſteemed of ſervice where the glands of the fauces have abounded with lympha, or where the conſtitution in general has been too much loaded with ſerum; and the ſame has been ſaid to relieve ſome aſthmatic patients, which is not unlikely: but this can be no reaſon for it's habitual uſe, eſpecially in thoſe who have no occaſion for it; for to ſuch, as an eminent phyſician apprehends, it does a great deal of prejudice, by drawing off the ſaliva, which nature providently prepares to dilute and in ſome meaſure to diſſolve the aliments taken in the ſtomach. Beſides, it excites a perpetual thirſt, and thereby tempts the perſon who ſmoaks or chews to drink more than is ſufficient for any good purpoſes in the conſtitution. Add to this, that many people have been brought into dropſies and conſumptions by too profuſe diſcharges of the ſaliva, excited by ſmoaking or chewing tobacco. Upon the whole, it muſt needs be extremely prejudicial, unleſs when it can be made ſubſervient to any good medicinal purpoſes; and even then, like opium, it ſhould be uſed when required only, and left off immediately when the neceſſity for it ceaſes. The ſame may be ſaid of tobacco conſidered as a ſternutatory, which may anſwer ſome purpoſes as a medicine, but it is ſure to be prejudicial when rendered habitual by way of amuſement *.—This plant is narcotic, emetic, and cathartic to ſuch a degree, that the internal uſe of it is ſeldom or never to be allowed, though a water diſtilled from the green leaves is much recommended for diſſolving ſtones in the urinary paſſages. Some people uſe an infuſion of tobacco as an emetic; but it is a dangerous and unjuſtifiable practice, as it is to apt to produce violent vomitings, ſickneſs, and ſtupidity. A ſtrong decoction of the ſtalks, with ſharp pointed dock and alum, is reckoned of good ſervice, uſed externally, in cutaneous diſtempers, eſpecially the itch, for which purpoſe ſome boil them in urine; and the ſame is ſaid to be an infallible remedy for the mange in dogs. The juice of tobacco is recommended to preſerve the teeth and gums, and

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* Some princes, as Amurath IV. emperor of the Turks, an emperor of Perſia, and a great duke of Muſcovy, have prohibited the uſe of tobacco in their dominions; and our king James I. was ſo ſenſible of it's pernicious effects, as to write a treatiſe expreſſly againſt it, intitled a Counter-blaſt to Tobacco.

to cure the tooth-ach; for which laſt purpoſe the chymical oil of tobacco, dropped on lint and applied to the tooth, has been of ſervice; but people ſhould be very cautious how they uſe this oil, which is ſo ſtrong, that a drop or two of it put on the tongue of a cat produces violent convulſions, and death itſelf in the ſpace of a minute. Some writers extol the uſe of tobacco in times of peſtilence, aſſerting that, when the plague raged in London, the houſes of tobacconiſts eſcaped the infection. But the greateſt uſe of tobacco in medicine is in clyſters; for even the ſmoke of it conveyed into the inteſtines ſtimulates ſo ſtrongly, as to procure ſtools when every other method of doing it has failed.

AMONG the ſhrubs of California is one called pitahaya, which is ſaid to be peculiar to that peninſula; it's branches are finely fluted, and riſe vertically from the ſtem, ſo as to form a very beautiful top; yet it bears no leaves, the fruit growing on the boughs, without ſhade or cover. It reſembles a horſe cheſnut, but contains a pulp, which has ſome reſemblance to that of a fig: in ſome it is white, in others yellow, and ſometimes red; but always exquiſitely delicious, it being a rich ſweet, tempered with a grateful acid. This peninſula has likewiſe moſt of the fruits to be found in other parts of America.

ANOTHER very remarkable vegetable of North America is the poiſon-wood-tree, which grows in New England in ſwamps or low wet grounds, and is deſcribed by Mr. Dudley as ſomewhat like a ſmall aſh, but much more like a ſumach, which it exactly reſembles in it's twigs, leaves, and ſhape, ſo that ſome call it the ſwamp-ſumach; and it likewiſe bears a dry berry. It never grows bigger than about the thickneſs of a man's leg, and as tall as an alder; but it ſpreads much, and ſeveral grow together, eſpecially about the roots of one that has been cut down. The inſide of the wood is yellow, and very full of juice, which is as glutinous as honey or turpentine, and ſtinks as bad as carrion; and the wood itſelf has a very ſtrong diſagreeable ſmell.—As to it's poiſonous quality, our author obſerves, that it poiſons two ways, either by the touch or by the ſmell; the ſcent of it, when cut down in the woods, or burning in the fire, being poiſonous to a great degree. One of Mr. Dudley's neighbours was blind for above a week with only handling it; and a gentleman, ſitting by his fire-ſide in the winter, was ſwelled for ſeveral days with the ſmoke of ſome of this wood that happened to be in the fire. But, what is ſtrange, it has this effect only on ſome particular perſons and conſtitutions, for Mr. Dudley has ſeen his own brother not only handle it, but chew it without any harm at all; and ſo by the ſame fire one ſhall be poiſoned, and another not in the leaſt affected. However, this ſort of poiſon is never mortal, but will go off in a few days of itſelf; though generally the patient applies plantain-water, or ſallet-oil and cream. A few hours after a perſon is poiſoned, he feels an itching pain that provokes a ſcratching, which is followed by an inflammation and ſwelling.—The wood is as cold as ice, as Mr. Dudley's neighbour that was poiſoned told him, ſo that he plainly perceived it differed from the other wood he was throwing up into his cart; and he aſſured him he could diſtinguiſh it blindfold, or in the dark, from any other wood in the world by it's coldneſs.

As we are now ſpeaking of New England, it ſeems proper to add ſome other obſervations of Mr. Dudley on the vegetables of that country, and particularly on the Indian corn or maize, which is the moſt prolific grain they have, commonly producing twelve hundred grains from one, and often two thouſand [*]. But the faireſt computation (ſays our author) is this: Six quarts of this grain will plant an acre of ground, and it is not unuſual for an acre of good ground to produce fifty buſhels of corn.—Another thing very remarkable in the Indian corn is it's variety of colours, as blue, white, black, red, yellow, greeniſh, ſpeckled, ſtriped, &c. and, if any one ſort be planted ſeparately, ſo that no other ſort be near it, it will retain it's own colour; but if in the ſame field you plant the blue corn in one row of hills (as they are called) and the white or yellow in the next row, they will mix and interchange colours; that is, ſome of the ears in the blue corn rows ſhall be white or yellow, and ſome in the white or yellow rows ſhall be blue. The little hills of Indian corn are generally four or five feet aſunder, and continued regularly in ſtraight lines, ſomething in the manner of a hop-ground; and yet this mixing and interchanging of colours has been obſerved when the rows of hills have been ſeveral yards diſtant from each other: nay Mr. Dudley was aſſured that this interchange has been made even at the diſtance of four or five rods, and particularly in a place where there was a broad ditch of water between the two different ſorts of grain; ſo that the mixture cannot be owing to the roots and ſmall fibres reaching to and communicating with each other, as ſome have imagined. Our author, therefore, is of opinion, that the ſtamina or principles of this ſurpriſing copulation or commixture of colours are conveyed by the wind, and that the ſeaſon of it is when the corn is earing, and while the milk is in the grain; for at that time it is in a ſort of eſtuation, and emits a ſtrong ſcent. What confirms this hypotheſis, of the air being the medium of this communication of colours in the corn, is an obſervation of one of Mr. Dudley's neighbours, viz. that a cloſe high fence of boards between two fields of corn, that were of a different colour, intirely prevented any mixture or alteration.

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[*] The fecundity of divers plants is very ſurpriſing. We have an account in the Philoſophical Tranſactions of a ſingle plant of barley, that by ſteeping and watering it with ſalt-petre diſſolved in water, produced two hundred and forty-nine ſtalks and eighteen thouſand grains. In this caſe indeed there were art and force made uſe of, but we have remarkable inſtances of this kind, effected by unaſſiſted nature, particularly that of a pompion-ſeed, atteſted by Mr. Edwards of Windſor. This ſeed, in the year 1699, was accidentally dropped in a ſmall paſture, where cattle had been foddered for ſome time; and, taking root of itſelf, without any manner of care the vine ran along over ſeveral fences, and ſpread over a large piece of ground far and wide, continuing it's progreſs till it was killed by the froſt. The ſeed produced no more than one ſtalk, but it was a very large one, being eight inches round; and from this ſingle vine they gathered two hundred and fifty pompions, one with another as big as a half peck, beſides a conſiderable number of ſmall ones, not ripe, which they left upon the vine. Add to this what M. Dodart obſerves, who has an expreſs diſcourſe on the fecundity of plants in the memoirs of the Academy of Sciences, wherein he ſhews, that an elm, at a moderate computation, yields one year with another three hundred and twenty-nine thouſand grains or ſeeds; each of which, if properly lodged, would grow up to a tree. Now an elm ordinarily lives a hundred years, and conſequently, in the courſe of it's life, produces near thirty-three millions of grains, all coming originally from one ſingle ſeed.—But inſtances of this fecundity need not be multiplied here, being obvious to every one's obſervation, who has the leaſt regard to the wonders of nature.

Mr. Winthrop deſcribes the ear of the Indian corn as generally about a ſpan long, conſiſting of ſeveral rows of grain, commonly eight or more, according to the goodneſs of the ſoil, and each row containing above thirty grains. The white and yellow ſorts are the moſt common; but he obſerves, that, not only in the ſame field, but even in the ſame ear, the grains are ſometimes of different colours. The ear is cloathed and armed with ſeveral ſtrong thick huſks, which not only defend it from unſeaſonable rains, and from the night-colds, (it being the latter end of September before it is fully ripe in ſome parts) but alſo from crows, ſtarlings, and other birds. It's ſtalk grows to the height of ſix or eight feet, more or leſs, according to the condition of the ſoil, or the kind of the ſeed. The maize of Virginia grows taller than that of New England, and there is a ſort uſed by the northern Indians farther up the country, which is much ſhorter. It is always jointed like a cane, is full of a ſweet juice, and at every joint grow long leaves almoſt like flags, and at top a bunch of flowers like the bloſſom of rye. The manner of planting this Indian wheat is in rows at equal diſtances every way, as has been already mentioned; and, when the corn is grown up to a proper height, they cut up the weeds and looſen the earth about it with a broad hoe, repeating this labour as often as the growth of the weeds makes it neceſſary. When the ſtalk begins to grow high, they draw a little earth about it; and, upon the putting forth of the ear, they ſcrape up as much as will make a little hill like a hop-hill; after which they give themſelves no farther trouble about it till harveſt.—This culture is all done with the hoe, but the Engliſh have now taken a better way of planting. With the plough they make ſingle furrows through the whole field at the diſtance of ſix feet, or as they ſee convenient; and to theſe they make croſs furrows at the ſame diſtance.

tance. Where theſe furrows interſect each other, they throw in the corn, and cover it either with the hoe, or by running another furrow with the plough. When the weeds begin to over-top the corn, they plough the reſt of the field between the planted furrows, and ſo turn in the weeds. This is repeated when they begin to hill the corn with the hoe, and thus the ground is looſened, and the roots have liberty to ſpread.—The huſks that grow about the ear of this corn the Indian women ſlit into narrow ſlips, and weave them curiouſly into baſkets of ſeveral faſhions.

Speaking of ſome of the vegetables in New England, Mr. Dudley mentions a platanus or button-wood-tree, as it is there called, which was nine yards round, and held that bigneſs a great way up; and this tree, when cut down, made twenty-two cords of wood, as our author was informed. This tree he often propagated by cutting of ſticks five or ſix feet long, and ſetting them a foot deep in the ground in the ſpring of the year, when the ſeaſon is wet; and this and the locuſt-tree (or American manna, as Mr. Dudley thinks it may be called) are remarkable for their quick and eaſy growth. A ſeed of the latter, blown off into our author's garden, took root of itſelf, and in leſs than two years was got above ſix feet high.

With regard to their fruit-trees Mr. Dudley obſerves, that their peach-trees are all ſtandards, and he himſelf has had in his own garden ſeven or eight hundred fine peaches of the rare-ripes growing at the ſame time upon one tree; to which we may add, that in ſeveral of the plantations they have ſuch vaſt quantities of peaches, that they beat them off the trees and give them to their hogs. Theſe trees raiſed from the ſtone will bear in three years, and our author had one in his garden of twelve years growth, that meaſured two feet one inch round, a yard from the ground, and two years before bore near two buſhels of fine peaches.

THE people of New England, ſays Mr. Dudley, have of late years run ſo much upon orchards, that in a village near Boſton, conſiſting of about forty families, they made, in the year 1721, near three thouſand barrels of cyder; and in another town of two hundred families, in the ſame year, they made near ten thouſand barrels. Some of their apple-trees will yield ſix, ſome ſeven barrels of cyder, at the rate of eight or nine buſhels of apples to the barrel; but this is not very common. Mr. Dudley has ſeen a fine pearmain-tree, which, at a foot from the ground, meaſured ten feet four inches round, and in one year bore thirty-eight buſhels of excellent fruit. The largeſt apple-tree he found in that country was ten feet and a half in compaſs.

THE orange pear-tree, according to our author, grows the largeſt, and yields the faireſt fruit. He obſerved one of theſe trees near forty feet high, which was ſix feet ſix inches in circumference, a yard from the ground, and bore thirty buſhels at a time; and he himſelf had a pear-tree that was five feet ſix inches round. One of his neighbours had a Bergamot pear-tree, brought from England in a box about the year 1643, which was ſix feet in compaſs, and in one year bore twenty-two buſhels of fine pears.

THE ſame gentleman gives us a remarkable inſtance of an apple-tree in an orchard, which bore a conſiderable quantity of apples, eſpecially every other year, and yet never had a bloſſom. For three years he went in the proper ſeaſon and obſerved it; and, when all the reſt of the orchard was in bloom, he could not ſee one ſingle bloſſom upon this tree. Not contented with once going, he went again and again, till he found the young apples perfectly formed. One year he took notice of it early, not knowing but it might blow ſooner than the other trees; but he found no bloſſoms: And the owner, with ſeveral of his neighbours, aſſured Mr. Dudley they had known the tree upwards of forty years, and that it never had any bloſſom. Our author opened ſeveral of the apples, and found very few ſeeds in them, ſome of which were lodged ſingle in the ſide of the apple.

Mr. Glover, who has given ſome account of Virginia in the Philoſophical Tranſactions, obſerves that fruit-trees are very numerous in that country; inſomuch that there are few planters without their orchards, ſome containing twelve hundred trees and upwards, bearing all ſorts of Engliſh apples, as pearmains, pippins, ruſſetins, marigolds, king's apples, batchelors, &c. of which they make a great deal of cyder. They have alſo infinite quantities of peaches, with which they feed their ſwine, (as we have hinted above) and quinces in abundance, both larger and fairer than the Engliſh, and not ſo harſh in taſte. They make a drink of the juice of quinces; and they have alſo apricots, and ſome ſorts of Engliſh plums, but theſe do not ripen ſo kindly as they do in England. The few pears they have are large and pleaſant, and figs grow there as good as in Spain; but it is remarkable that neither oranges nor lemons will thrive there, though they will in more northerly countries. Cherries are as plentiful all over Virginia as they are in Kent, and the trees are generally larger than in England, and bear more plentifully, without digging about them, or pruning. The woods abound in vines, which twine about the oaks and poplars, and run up to the tops.

Theſe bear a kind of red grapes, the wine whereof is ſmaller than French claret; but Mr. Glover is of opinion, that, if ſome of them were planted in convenient vineyards, where they might be better expoſed to the influence of the ſun, and carefully kept and pruned, they would produce as good grapes as the claret-grapes of France. There is alſo in the woods a little ſhrub with a berry like that of our elder, which is very pleaſant to eat; and likewiſe a tree called chincopin, which bears a nut reſembling a cheſnut, with a rough huſk, but much ſmaller.

On the ſides of the hills in Virginia grows plentifully a ſpecies of aſarum, or black ſnakeweed, the roots whereof are brought over among the true ſerpentaria Virginiana, and are promiſcuouſly uſed with them, being diaphoretic and alexipharmic.—Soldanella, or ſea ſcurvy-graſs, is found in great plenty on the ſide of the bay. This herb, being excellently calculated for diſcharging water, contributes very much to the cure of dropſies and ſcurvies; and it is likewiſe uſed in rheumatic caſes. It works very roughly, and much diſorders the ſtomach.—There grows likewiſe in Virginia an herb called dittany by ſome, and by others pepperwort. It riſes to the height of twelve or eighteen inches; it's leaves are very ſmall and ſhaped like a heart, which ſhoot out of the ſtalk and branches directly oppoſite to each other; and it ſmells hot, and bites the tongue like pepper. The diſtilled water of this herb is an excellent remedy againſt worms, and an ounce of it provokes ſweat plentifully.—Here are alſo found two roots, ſuppoſed by the phyſicians to be turbith and mechoacan, both ſtrong purgatives. Turbith purges tough ſerous humours from the remote parts, and is therefore of ſervice in the dropſy, gout,

gout and rheumatiſm. The root of mechoacan is uſed to purge pituitous, ſerous, and aqueous humours from all parts of the body, eſpecially from the breaſt, and the head and nervous ſyſtem. That is to be choſen which is recent, white, and ponderous.—Our author takes notice of another medicinal plant, about a foot and a half or two feet high, whoſe leaves are rugged like thoſe of borage, but longer, and it's berries when ripe are yellow. The Engliſh call it the fever or ague-root, from it's ſervice in thoſe diſtempers. A dram and a half of this root newly taken out of the ground, and infuſed in beer and water for twelve hours, purges with great violence; but a dram of it in powder only excites ſweat, and that but moderately. It's taſte is a little bitter, and therefore ſomewhat hot.

In ſpeaking of the vegetables of America which make a part of the materia medica, we ought by no means to omit ſaſſafras, which is a yellow wood, of a briſk aromatic ſcent, the produce of a tree, whereof there are vaſt numbers in Florida, and alſo in Virginia and other Engliſh provinces. The natives of Florida call it pahamwe, and amongſt us it has obtained the name of fennel-wood, it's ſmell ſomewhat reſembling that of fennel. It is principally of uſe in removing obſtructions and ſtrengthening the internal parts, in cauſing fertility, and curing the venereal diſeaſe. It is reckoned a ſovereign remedy for catarrhs, and is eſteemed in the gout, ſciatica, and green-ſickneſs. In ſome families it has of late grown into faſhion as a common tea, which the ſhavings of it make agreeable enough; but it's reputation of being good in venereal caſes is a detriment to it, and prevents a great deal of good which might otherwiſe be effected by uſing it more frequently.—Chuſe that covered with the thickeſt, bark, reddiſh and rough, of a ſharp taſte, and ſtrong aromatic ſmell.

IN New Spain, and ſeveral other parts of the Weſt-Indies, grow thoſe ſeeds we call vanillas, vanelloes, or banillas, which are uſed as an ingredient in chocolate, to which they give a pleaſant flavour; and they are alſo uſed to perfume ſnuff and tobacco. We do not find that they enter into any medicinal compoſition, though Hernandez ſays they are grateful to the ſtomach and brain, expel wind, provoke urine, reſiſt poiſon, and cure the bites of venomous animals.

UPON the bark of a certain tree growing in Nova Scotia, and the more eaſterly parts of New England, Mr. Winthrop ſays there are little knobs containing a liquid matter like turpentine, of a very healing nature. The ſame gentleman mentions a vegetable called ſilk-graſs, the pods whereof are full of a ſort of fine cotton, which is uſed in ſtuffing pillows and cuſhions. At the bottom of ſome of the leaves, there is a hollow knob, breeding a fly like a piſmire.

HERE we might enumerate many other vegetable productions of the northern part of America, which are uſeful in medicine, dying, &c. but the detail would be tedious and inſipid; and therefore we ſhall finiſh this article with the tulip tree, which grows wild in ſeveral of our colonies, and is a curioſity that deſerves to be mentioned. This tree riſes to a conſiderable height, and produces a vaſt number of flowers, in variety of colours and ſhape reſembling the tulips in our gardens, from whence it's name. It bears no fruit; but, when it is in full bloom, no tree in the world appears more beautiful.

ANIMALS.

WE cannot begin this article more properly than with the mooſe-deer, which is thought to be peculiar to North America, and one of the nobleſt creatures of the foreſt. Theſe deer are found no where in greater numbers than in New England, and Mr. Dudley informs us there are two ſorts of them, viz. the common light-grey mooſe, and the large or black mooſe. The former, which the Indians call wampooſe, are more like the ordinary deer, ſpring like them, and herd ſometimes to the number of thirty together. The black mooſe, whoſe hair is dark-grey, is ſhaped much like the common deer, parts the hoof, chews the cud, has no gall, his ears large and erect, and has a very ſhort bob-tail. Theſe deer are leſs gregarious, not above four or five being found together. The hunters in New England have taken a buck or ſtag-mooſe of the black kind ten feet and a half in height from the withers, and a quarter of this veniſon weighed upwards of two hundred pounds. A black mooſe-doe or hind of the fourth year was killed within two miles of Boſton, which from the noſe to the tail meaſured between ten and eleven feet, and was ſix feet eleven inches high. The horns of the mooſe, when full grown, are between four and five feet from the head to the tip, each horn having ſeven ſhoots or branches, and they generally ſpread about ſix feet. When the horns, which are ſhed every year, firſt come out of the head, they are round like thoſe of an ox, but about a foot from the head they begin to grow a palm broad, and higher up ſtill broader, ſo that the Indians make ladles of them that will hold a pint. When a mooſe goes through

through a thicket, or under the boughs of trees, he lays his horns back on his neck, not only that he may make his way the eaſier, but to prevent his being ſcratched or hurt by the wood. A mooſe does not ſpring, or riſe in going, as a common deer, but rather ſhoves along ſide-ways; and, when he is unharboured, he will run a courſe of twenty or thirty miles before he turns about or comes to a bay. He is not ſo ſwift as the common deer, but will run longer; and, when he is chaced, he uſually takes to the water. One of theſe large black mooſes has been ſeen, in his common walking, to ſtep over a gate or fence five feet high.

THE fleſh of the mooſe is excellent food, and, though it be not ſo delicious as common veniſon, it is more ſubſtantial, and will bear ſalting. The noſe of the animal in particular is reckoned a great dainty; and Mr. Dudley, who eat ſeveral of them, ſays he found them to be perfect marrow. The ſkin of the mooſe well dreſſed makes excellent buff, and the Indians make their ſhoes of this ſkin for travelling in the ſnow. Their way of dreſſing it is this: After they have haired and grained the hide, they make a lather of the mooſe's brains in warm water; and, after they have ſoaked the hide for ſome time, they ſtretch and ſupple it. Nor are the fleſh and ſkin of the black mooſe the only parts of it that are ſerviceable, for even the hair on the ridge of his back, which is ten or twelve inches long, is made into good belts by the Indians.—A mooſe generally brings forth two young ones, which it is ſaid to do ſtanding, and the young fall from the dam upon their feet.

THESE creatures, being very tall, and having ſhort necks, do not graze on the ground like the common deer, horſes, cows, &c and, if at any time they eat graſs, it is the top of that which grows very tall, or on the ſide of a riſing ground. In the ſummer they feed on plants, herbs, and young ſhrubs that grow on the land, but are moſt fond of water-plants, eſpecially a ſort of wild colts-foot and lilly, which abounds in ponds and by the ſides of the rivers. For this food the mooſe will wade far and deep, and it is by the noiſe they make in the water that the hunters often diſcover them. In the winter they live by browzing on the tops of buſhes and young trees; and, being very ſtrong, as well as tall, they will bend down a tree as thick as a man's leg. When the browze fails them they will eat off the bark of ſome ſorts of trees as high as they can reach. They generally feed in the night, and lie ſtill in the day*.

THE Mexican muſk-hog, ſo called from it's ſcent, is a remarkable animal, found not only in New Spain, but in ſeveral other parts of the American continent. Dr. Tyſon had one which he had the curioſity to diſſect, and he deſcribes it as much leſs than our common hogs; for, from the end of the body where the tail ſhould be, if it had one, to the top of the head between the ears, it meaſured only two feet two inches, and from thence to the extremity of the ſnout eleven inches. The compaſs of the body was two feet, that of the neck ſixteen inches, of the head in the largeſt place eighteen inches, and of the ſnout twelve inches; for the lower jaw of this hog was more protuberant, and the head leſs tapering, than in our ſwine. It's body was of a grizzly colour, and beſet with briſtles, which were thicker than thoſe of a hog, yet ſmaller than thoſe of a hedgehog, but reſembling them, or the quills of a porcupine, and variegated with rings of black and white. The belly was almoſt bare, and the briſtles on the ſides were ſhort, but gradually increaſed in length as they approached the ridge of the back, where ſome were five inches long. On the head between the ears there was a large tuft of theſe briſtles, which were moſtly black. The ears were about two inches and a half long, and pricking up; and the eyes, like thoſe of pigs, were ſmall. The ſnout was like that of a hog, but the mouth ſmall; and one ſide of the lower lip was made ſmooth by the rubbing of the tuſk in the upper jaw. The feet and claws were perfectly like thoſe of common hogs. It had no tail, as was intimated above; but it's greateſt peculiarity, and what diſtinguiſhes it from any other animal, is the navel or rather foramen on the hinder part of the back. Theſe animals are uſually found in the woods and mountains, and go in herds together. They feed on roots, and fruits; but as the greateſt dainty they hunt after all manner of ſerpents and toads, and, having caught them, they hold them with their fore feet, and with a great deal of dexterity ſtrip off the ſkin with their teeth from the head to the tail, and then greedily devour them. As an antidote againſt the poiſon, they are ſaid to eat the bark of a certain tree; and by this ſort of food they thrive and become fat. They are naturally very fierce; and, if one of them be wounded, he preſently gets to his aſſiſtance a great number of his kind, and never deſiſts till he is ſlain or has revenged the injury. They are always at enmity with the tygers, and oftentimes the body of a tyger and ſeveral of theſe hogs are found dead together. If they ſpy a man, they will attack him fiercely, and his beſt refuge is to get up a tree, which they will aſſault moſt furiouſly with their teeth; nor will they eaſily leave him till they are called off by hunger. When they are hunted, they often tear the dogs to pieces. Their fleſh is eſteemed very good, and is much coveted by the natives. — Some authors call this animal tajacu.

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* To this account of the American mooſe-deer it is proper to add an obſervation of Dr. Molyneux in the Philoſophical Tranſactions, who there deſcribes a large pair of deer's horns dug up in Ireland, which from the tip of the one to that of the other were ten feet ten inches wide. Theſe horns he doubts not belonged to a mooſe; and, from the number of them found in ſeveral parts of Ireland, he concludes that theſe majeſtic deer were formerly as frequent in that country, as they are now in New England, Canada, Maryland, and Virginia.

The peculiarity above-mentioned, called the navel, ſeems to require a little cloſer obſervation. It is ſituated juſt on the ridge of the back over the hinder legs, and is ſo covered by the long briſtles there, that it cannot be ſeen without opening or ſeparating them, and then you find a ſmall ſpace almoſt bare, only beſet with fewer, ſhorter, and finer hairs. In the middle of it is the orifice of the gland, by which it diſcharges itſelf of the liquor it ſeparates; and this orifice has it's lips a little reflected and protuberant above the ſurface of the ſkin. Dr. Tyſon found it would eaſily admit of a large probe, which could be turned into ſeveral parts of the gland; and, upon a gentle preſſure with the fingers, it emitted a ſmall quantity of a yellowiſh juice, which yielded a very agreeable ſcent, much like that of muſk or civet. This gland is of the conglomerate kind, conſiſting of ſeveral other minute glands. It has no conſiderable cavity within it, but has ſeveral excretory ducts, which, terminating at laſt in one, diſcharges it's ſecreted juice by a common orifice. This orifice, having ſome reſemblance to a navel, has impoſed upon almoſt every author that has written on this animal, ſo far that they have taken it for a real navel; and others, who have not fallen into this ſentiment, have propoſed conjectures about it full as abſurd and extravagant: but there is nothing, according to Dr. Tyſon, to which it can be more fitly compared than to the ſcent-bags in other animals.

WE have heretofore given ſome account of the beaver, and of it's bags or purſes containing a liquid matter called caſtoreum, of conſiderable uſe in medicine *; but there are ſome other ſurpriſing particulars related of theſe animals, which we promiſed to take notice of when we came to Canada, which country abounds with them more than any other part of the world. In the memoirs of the Royal Academy of Sciences there is an extract of a letter from M. Sarraſin, the French king's phyſician in Canada, concerning the diſſection of a beaver. He ſays the largeſt are three or four feet long, and about twelve or fifteen inches broad in the cheſt and haunches; that they commonly weigh about fifty pounds; and that they uſually live to the age of twenty years: but Francus ſays, they live thirty or forty years, and that he had heard of a tame one being kept ſeventy-eight years. Dr. Sarraſin ſays farther, that a great way north the beavers are very black, though there are ſome white; but thoſe of Canada are commonly brown, and their colour grows lighter as they are found in more ſouthern countries.

THESE creatures, according to the accounts of travellers, obſerve a wonderful polity, and their manner of living and building their habitations

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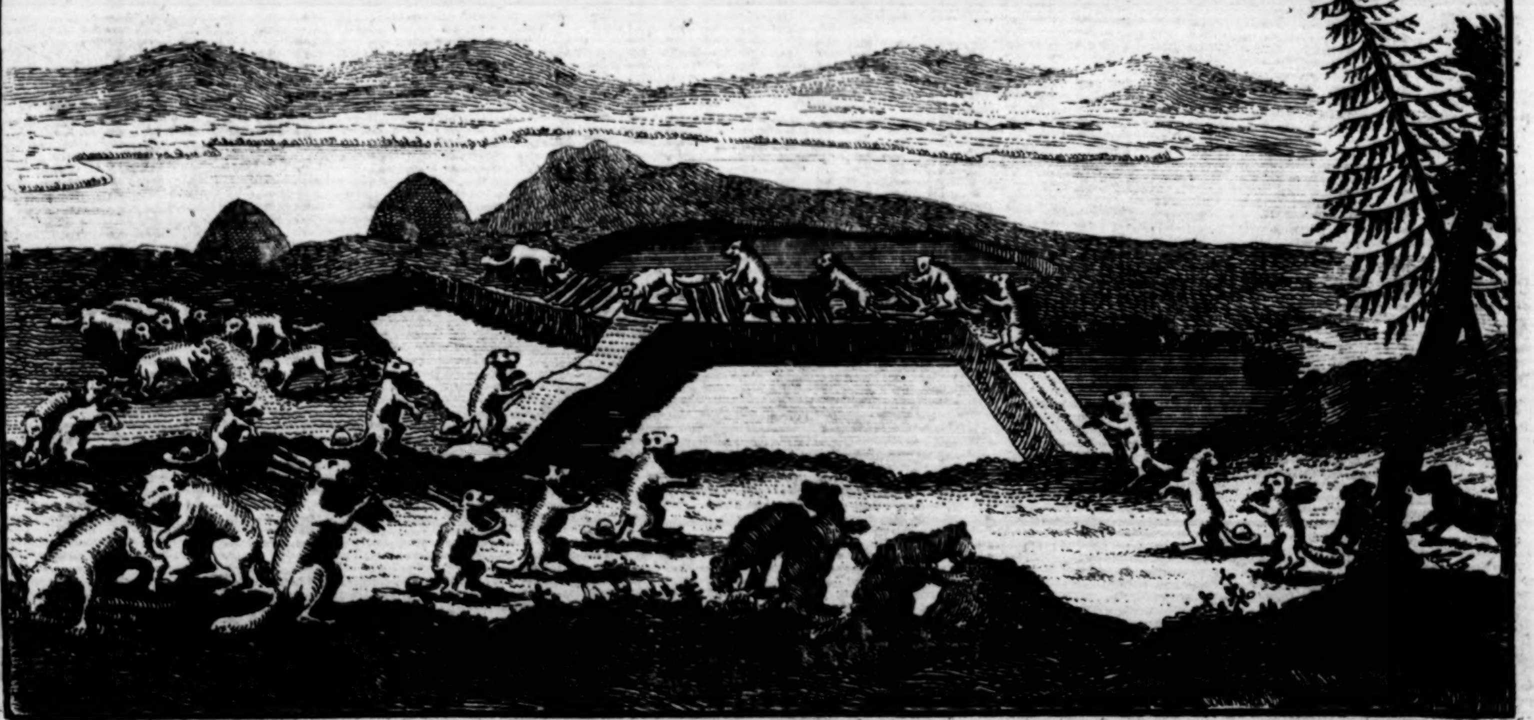
* See Vol. III. p. 77—80.

ſhews

BRITISH MUSEUM 22 AP 57

The Industry of the Beavers of Canada



ſhews an extraordinary inſtinct implanted in them by the great Author of nature. In order to raiſe themſelves a convenient abode, they chuſe a low level ground, watered with a ſmall rivulet, where, by making dams acroſs it, they can form a reſervoir of water and overflow the ground. Theſe dams or cauſeys are formed by thruſting down ſtakes five or ſix feet long, and as thick as a man's arm, deep into the earth; and theſe they wattle acroſs with tender pliable boughs, and fill up the ſpaces with clay, making a ſlope on the ſide againſt which the water preſſes, and leaving the other perpendicular. One of theſe dikes may be ten or twelve feet thick at the foundation, and they raiſe it in height proportionably to the water's elevation and plenty. As they are ſenſible that materials for building are not ſo eaſily tranſported by land as by water, they take the opportunity of ſwimming, whenever they can, with clay placed on their tails, and ſtakes of wood between their teeth, to every place where thoſe materials are wanted. If the violence of the water, or the footſteps of the hunters who paſs over the work, ſhould damage it in any degree, they immediately viſit all the edifice, and with indefatigable application repair and adjuſt whatever they find out of order: but, if they are two frequently diſturbed by the hunters, they only work in the night, or elſe diſcontinue their labours.

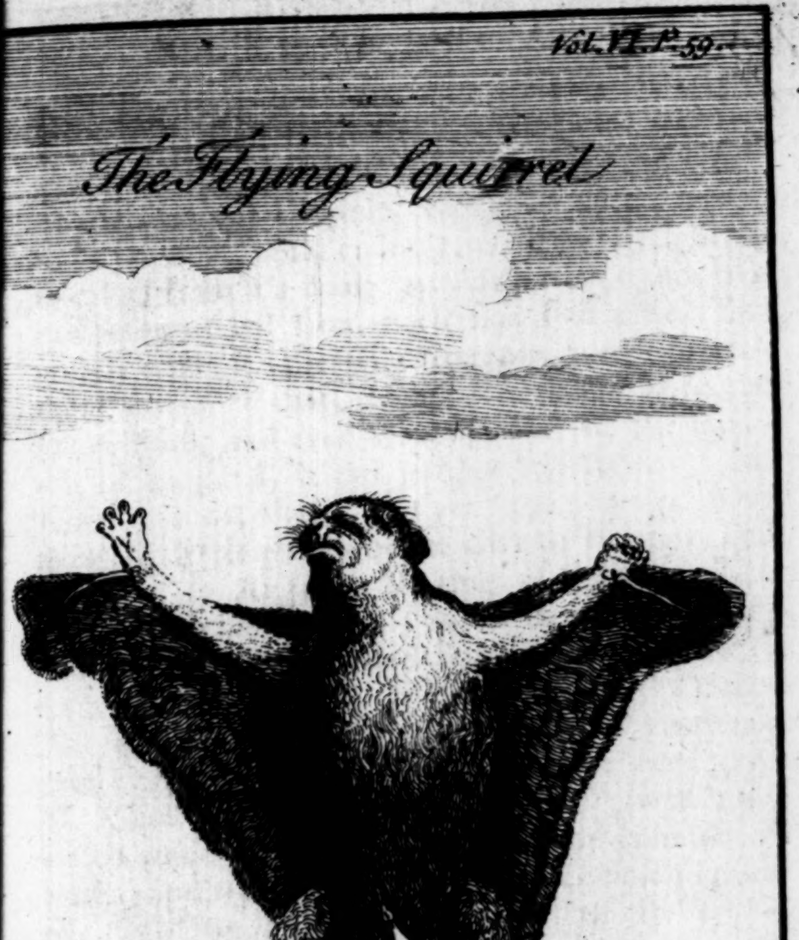
When the beavers have compleated their cauſey or dike, they begin to form their cells, which are round or oval apartments, divided into three partitions or ſtories, raiſed one above another. The firſt is ſunk below the level of the dike, and is generally full of water; the other two are formed above it. The walls of theſe houſes are upright, and about two feet thick; and they are always built in ſtories, that, in caſe the water riſes, the beavers may retire to a higher ſituation. The materials are the ſame as they uſe for the dike; and, as their teeth ſupply the place of ſaws, they cut off all projections that ſhoot out from the ſtakes beyond the perpendicular of the wall; after which they work up a mixture of clay and dry graſs into a kind of mortar, and by means of their tails lay it over the building both within and without. They likewiſe drive ſtakes into the earth to fortify the ſtructure againſt the winds and water; and at the bottom they ſtrike out two openings to the ſtream, one of which leads to the place where they bathe, and the other is a paſſage to that quarter where they carry out every thing that would ſoil or rot the upper apartments. There is a third aperture much higher, calculated to prevent their being ſhut up when the ice hath cloſed the openings into the lower lodgments. The dimenſions of their houſes are proportioned to the number of the intended inhabitants, twelve feet in length and ten in breadth being found ſufficient for eight or ten beavers; and, if the number increaſes, they enlarge the building accordingly. It has been aſſerted for truth, that there have been found above four hundred of theſe creatures in different apartments communicating with one another; but theſe populous ſocieties are very rare, becauſe they are too unmanageable, and the beavers are generally better acquainted with their own intereſts. They aſſociate to the number of ten or twelve, and ſometimes a few more, and ſo paſs the winter together in a very agreeable manner.

THERE are ſome beavers called terriers, which burrow in the earth, beginning their hole at ſuch a depth under water as they are ſenſible it will not freeze at; and this they carry on for five or ſix feet, juſt big enough for them to creep through. Then they make a bathing-place three or four ſeet ſquare, from whence they continue the burrow, always aſcending by ſtories, that they may lodge dry as the water riſes. Some of theſe burrows have been found to be a hundred feet in length. —This is Dr. Sarraſin's account of the terriers, but others ſay they begin their burrow on the land, and having dug downwards to a proper depth, they then dig horizontally till they come to the water.

THE beavers of Canada have generally compleated all their works in Auguſt or September, after which they furniſh themſelves with proviſions for the winter. During the ſummer they regale themſelves with all the fruits, plants, and roots the country produces; but againſt winter they lay up a ſtock of wood, which they feed upon after ſteeping it in water, and this in quantities proportionable to their neceſſary conſumption. They gnaw off twigs and branches from the trees, of which the large ones are conveyed to the magazine by ſeveral beavers, and the ſmaller by a ſingle one; and it is obſerved that they take different ways, each having his walk aſſigned him, that they may not interrupt one another in their labour. The dimenſions of their pile of wood are regulated in proportion to their numbers, and we are told that one of twenty-five or thirty feet ſquare, and eight or ten feet high, is the uſual proviſion for eight or ten beavers. When the wood is ſoaked in water, they gnaw it into ſmall pieces, and convey it to their cells, where it is regularly divided amongſt them. Sometimes they expatiate in the woods, and regale themſelves and their young with a freſh collation; for they love green wood better than that which is old and withered: and the hunters, ſenſible of this, place a parcel of the former about their habitations, and then have ſeveral devices to inſnare them. When the winter is ſevere, and the water frozen over, the hunters ſometimes break the ice; and, when the beavers come to the opening for the benefit of the freſh air, they kill them with hatchets; or elſe they cover the aperture with a ſtrong net, and then overturn their lodge, upon which the poor animals, thinking to eſcape by betaking themſelves to the water, and emerging at the hole in the ice, fall into the ſnare and are taken.—Many other things are related concerning the ſagacity and induſtry of theſe creatures, the ſtrength and beauty of their little cities, of the wars which one canton wages againſt another, and of their putting the moſt laborious part of their work upon thoſe they take priſoners, &c. All which, though ſeemingly well atteſted, are yet looked upon by the generality as too much exaggerated to deſerve any credit.

THERE is another animal common enough in ſeveral parts of America, called a muſk-rat, which is exactly ſhaped like our water-rat, only ſomewhat larger. Theſe creatures build houſes as the beavers do, in marſhes by the water-ſide, with two or three ways to them; and the inſide of them is neatly plaiſtered. They conſiſt of three ſtories, ſo that the rats aſcend from one into the other as the water riſes. In ſhort, they are in all reſpects beavers in miniature, and therefore any farther account of them is unneceſſary.

IN North America we meet with ſeveral kinds of ſquirrels, particularly one called the ground-ſquirrel, which is little larger than a mouſe, and is finely ſpotted like a young fawn. It is a ſort of dormouſe, only different in colour.—Thoſe called fox-ſquirrels, which are much larger than the Engliſh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The Flying Squirrel

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gliſh ſquirrels, are very numerous in Virginia. They are almoſt as grey as a common rabbet, and are reckoned as good food.—But one of the greateſt curioſities of Virginia, though it cannot be ſaid to be peculiar to that country, is the flying ſquirrel, ſo called from it's being provided with a ſkin that can be expanded from each ſide like a ſail, and greatly aſſiſts it in leaping from one bough to another; inſomuch that, though it is ſmaller than the fox-ſquirrel, and even than the leaſt of our ſquirrels in England, it can jump much farther. M. Klein tells us, that in the year 1727 two of theſe flying ſquirrels were brought alive to Warſaw, and preſented to Auguſtus II. king of Poland. The king's phyſician examined one of them when dead, and cauſed it's expanded body to be delineated; from a view of which, as repreſented in the plate, the reader will form a better idea of the animal, than from a verbal deſcription. In the year 1728 M. Klein had one of theſe ſquirrels given him, which was taken in the woods on the confines of Ruſſia, and was much leſs than the common ſquirrel. It's ſkin was very ſoft, of a beautiful dark-grey colour, and it's eyes were large, black, and prominent. It had ſmall ears and very ſharp teeth; but, though moſt of them are miſchievous enough, this was pretty gentle, and would not bite, unleſs it was provoked. They fed it with bread baked without ſalt, but the freſh tops of birch were it's favourite food, it neither caring for nuts nor almonds. The little creature made it's bed in an elegant manner of the moſs of the birch, in which it would lie buried as it were, and not ſtir from thence in the day-time, unleſs diſturbed or thirſty. As to the membrane which may be called it's flying inſtrument, it might be expanded from each ſide about the breadth of a palm, and adhered to the bending of the hinder feet, but was connected with the fore feet by a bony articulation. Upon the whole, M. Klein concludes, that this animal does not properly fly *, but that it can leap from place to place with greater eaſe than other ſquirrels, and by means of it's ſails continue longer in the air.

THE conſideration of the flying ſquirrel naturally leads us to take a view of ſome of the feathered race, whom nature has furniſhed with wings that enable them to expatiate in the air; that is, to fly, in the true and proper meaning of the word. Of all this tribe here is none more deſervedly admired than that curious and beautiful little animal called the humming-bird, of which there are ſeveral ſpecies to be met with in moſt parts of the American continent, as well as in many of it's iſlands. The ſmalleſt ſort of humming-birds, according to Mr. Smith, is conſiderably leſs than a wren; and, according to all accounts, it is the leaſt bird in the world. Mr. Hamerſly (in the Philoſophical Tranſactions No. 200.) tells us, that the leg and foot together are but half an inch, and the whole body not quite an inch in length. Upon weighing one as ſoon as it was killed, it was found to be only the tenth part of an ounce avoirdupoiſe, which is much about the weight of a ſixpence; whereas a titmouſe,

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* Such animals are properly called flying as roam about freely in the air, and not ſuch as only leap with agility from one tree to another. Nay, it has been much doubted by ſome, whether there is any ſuch thing in nature as a flying quadruped; but the common bats put the matter out of diſpute, to ſay nothing of the dracunculi preſerved in ſeveral muſeums.—Something like the flying ſquirrel, or perhaps the ſame, is the felis volans (or flying cat) of Scaliger; and of the ſame nature, but larger, is the veſpertilio admirabilis (the wonderful bat) of Brontius.

titmouſe, the ſmalleſt bird in England, weighed above two ſhillings. The ſame gentleman tells us, that it's eggs are about the bigneſs of a pea; and Mr. Winthrop, who weighed two of them, found one to be about five grains, and the other only three and a half. As to it's colours, they are various and ſurpriſingly beautiful, though the bird is differently deſcribed by different authors. De Laet repreſents it as having all the colours of the rainbow, the ends of the wings being of a golden colour, as alſo it's belly; the ſides green as an emerald, with a green tuft of feathers on it's crown, a circle round it's neck as red as a carbuncle, the bills and legs black as jet, and the eyes like diamonds. Mr. Smith ſays it's colour is like that of a peacock's neck, in that part where the black ground is finely ornamented with a gliſtening greeniſh blue; and Mr. Hamerſly deſcribes it to be of a ſhining green colour, ſomewhat reſembling the head of an Engliſh drake.—But, though authors differ a little in their deſcriptions of the humming-bird, all agree that it's plumage is extremely beautiful.

It is natural to ſuppoſe this little creature obtained it's name from the humming noiſe it makes in it's flight, almoſt like that of a ſpinning-wheel, occaſioned by the ſwift motion of it's wings; and yet Mr. Hamerſly ſays he never obſerved any ſuch thing. It is a ſolitary bird, no more than two being ſeen together at a time, viz. the male and female; and they are eaſily diſtinguiſhable, the former being ſomewhat bigger than the latter. They feed by thruſting their ſlender bill and tongue into the bloſſoms of trees and other flowers, from whence (like bees) they extract the ſweet juices; and this they do upon the wing, hovering over the flower without perching. They can fly very ſwiftly; and Mr. Smith tells us he has known one of them give chace to a hawk, though he imagines the diminutive ſize and agility of the bird were it's only protection. Some writers however repreſent the humming-bird as formidable to the hawk on account of his ſharp bill, which is as fine as a needle, and with which he pierces the ſides of his enemy, clinging faſt to him with his little talons: but this we apprehend is fabulous.— The neſt of the humming-bird is curiouſly contrived, being made of cotton-wool, in form and bigneſs like the thumb of a man's glove, and uſually built at the extremity of the branches of the tamarind or other trees. Theſe birds are ſeldom ſeen on the ground, but fly about the gardens from one flower to another. They are ſeen only in ſummer, and are very difficult to keep alive for want of their natural food; though Mr. Clayton ſays they have been kept, and fed with water and ſugar.

THE next curioſity among the feathered inhabitants of North America may be reckoned the mocking-bird, ſo called from it's imitating the notes of all other birds, which, with the many charming ones of his own, makes him accounted the fineſt ſinging bird in the world. There are two ſorts of them, the grey and the red, both about the ſize of a thruſh; but the former is moſt eſteemed, as having the ſofter note. It's feathers are much of the colour of our grey plovers, with white in the wings like a magpye; and it's poſtures in flying are very odd, ſometimes with it's tail upright and it's head down, and ſometimes the contrary. It is a briſk bold bird, and yet ſeems to be of a tender conſtitution, neither ſinging in winter, nor in the middle of ſummer, and with much difficulty are any of them brought to live in

England. It ſings not only by day. but alſo at all hours of the night on the tops of chimneys.

In Carolina are five kinds of hawks, the moſt remarkable of which is named the herring-tailed hawk, from it's beautiful forked tail; and it is alſo called the ſnake-hawk, from it's feeding on ſnakes, it managing with great dexterity the largeſt in thoſe parts. It is of the ſize of a falcon, and is a much longer bird, of a fine aurora colour, with the pinions of the wings and end of the tail of a jet black. They never appear there but in ſummer, and are very familiar. They will fly for hours together, near the place where the ſnakes are, till they have an opportunity of killing ſome of them. They ſeize the formidable reptile in their talons, near the head, flying and dragging it ſome diſtance before they tear it in pieces; and then they devour it. On account of their deſtroying the ſnakes, the planters will not ſuffer them to be killed.

There are two ſorts of Virginia nightingales, or red birds, the one with a tuft on his head, the other quite ſmooth-feathered. The cocks of both ſpecies are of a pure ſcarlet, and the hens of a duſkiſh red.—In the ſame country they have a bird called a blue bird, being of a beautiful azure colour, and about the bigneſs of a chaffinch; and they have ſeveral ſorts of goldfinches, finely variegated with red, orange, and yellow feathers.—There is another bird very injurious to corn, called a black-bird, being as black as a crow, only ſome of them have ſcarlet feathers in the pinions of their wings. They ſeem to be a ſort of ſtarlings, for they cry like them, but do not ſing, and are much of the ſame bigneſs.—The jay of Virginia is leſs than our Engliſh jay, and the body of it is blue, whereas ours is brown. It's wings are curiouſly marbled, as thoſe of ours are; and it has the ſame cry, and ſudden jetting motion.—In their woodpeckers there is great variety; one ſpecies of them is as big as a magpye, with blackiſh brown feathers, and a large ſcarlet tuft on the top of the head; beſides which there are four or five ſorts more, ſome with green, yellow, and red heads, and others ſpotted red and white in a very beautiful manner.

IN Virginia, Mr. Clayton informs us there are three ſorts of eagles; the largeſt of which they call the grey eagle, being much of the colour of our kite or glead; the ſecond is the bald eagle, ſo called becauſe the body and part of the neck and head are only covered with a whitiſh ſort of down; and the third is the black eagle, much reſembling thoſe of our own iſland. Theſe generally build their neſts on the top of ſome tall old tree, ſtripped of it's boughs, and near the ſide of a river; and the people uſually fell the tree when they take the young. When the eagle obſerves that the fiſhing-hawk hath ſtruck a fiſh, he takes wing immediately, and purſues the hawk; which chace affords the ſpectators an agreeable entertainment, for, as ſoon as the hawk perceives himſelf purſued, he ſcreams and makes a terrible noiſe, till at length, in order to ſave himſelf, he drops the fiſh, which the eagle frequently catches before it reaches the earth or water. Theſe eagles kill young lambs, pigs, &c.—The fiſhing-hawk is a ſpecies of the king's-fiſher, and much reſembles that bird in ſhape and colour, though it is larger, and not quite ſo curiouſly feathered.

SEVERAL ſorts of owls are found in Virginia and our other colonies, particularly brown and white owls, which are as large as a gooſe, and often kill hens and other poultry in the night.

The white owl has a delicate plumage, the feathers on the breaſt and back being white as ſnow, and tipped with a jet black.—They have likewiſe a large ravenous kind of bird, that feeds on carrion, almoſt as big as an eagle, called a turkey-buſtard, having red gills reſembling thoſe of a turkey, from whence it's name. It ſeems to be a ſpecies of the kite, hovering on the wing like that bird, and being carnivorous. It's fat, diſſolved into an oil, is much recommended in the ſciatica, and any old aches and pains.—Nor ought we to forget their wild turkeys, which are remarkable for their ſize, ſome of them weighing fifty or threeſcore pounds. Their legs are very long, and they run exceeding ſwiftly. Their feathers are of a blackiſh ſhining colour, reſembling thoſe of a dove's neck when viewed in the ſun-ſhine.—They have alſo ſeveral ſorts of herons, one larger than the Engliſh, and feathered like a gooſe; and there is another ſpecies which come only in ſummer, and are milk-white, with beautiful red legs.—Add to this, that their cocks and hens are for the moſt part without tails and rumps; and thoſe of the Engliſh fowls rot off, after they have been ſome time in the country.

Mr. Clayton tells us, that they have ſeveral ſorts of frogs in Virginia, and one in particular of a prodigious ſize, being eight or ten times as big as any in England. It makes a noiſe like the lowing of a bull, or the hollow ſound of a bittern. There is another ſmall ſort of a frog, ſays our author, which during the ſpring makes a noiſe like pack-horſe bells; and a third ſort which is green, and will take ſurpriſing leaps, on which account it is called the flying frog.

The blowing ſnake, which is a ſort of viper, has it's name from it's blowing and diſtending it's head before it bites. It's poiſon, without a ſpeedy remedy, is mortal; and there is another dangerous kind of ſnake called the red ſnake, it being of a dark brown colour inclining to red. Their bellies are of a duſky white, with a ſtreak of red on each ſide.

THE horn-ſnake is another remarkable ſpecies, ſo called from a horn on it's head, with which it gives a wound as mortal as the bite of the rattle-ſnake.

THAT called the corn-ſnake, from it's being frequently found in corn-fields, is much like the rattle-ſnake in colour, but the chequers are not ſo regular, nor is it's bite ſo venomous.

WE ſhall next give an account of the rattle-ſnake, an animal found commonly enough in moſt of the warm parts of America; and we ſhall be the more particular on this ſubject, as it has afforded matter of ſpeculation and wonder to the moſt curious inſpectors into the works of nature. To begin then with it's name: It is ſo called from certain joints at the end of it's tail, which fold over each other ſomewhat like the tail of a lobſter; and theſe being ſhook by the animal make a rattling noiſe, from whence it received it's name. The number of theſe joints or rattles is uncertain, being more or leſs according to the age of the ſnake, as ſome authors aſſert, imagining that every year there is the addition of a new rattle. However, they ſeldom exceed twenty, though Mr. Dudley was told by a man of credit, that he killed a rattle-ſnake, which had between ſeventy and eighty rattles, with a ſprinkling of grey hairs, like briſtles, all over his body; and that it was full five feet ſix inches long, and as big as the calf of a man's leg. Dr. Derham and others have obſerved, that Providence has wiſely given theſe rattles to this poiſonous ſerpent, that the noiſe might be a warning to man and beaſt to avoid the approaching danger.

THE uſual length of the rattle-ſnake is from three to five feet: Dr. Tyſon diſſected one four feet five inches long, whoſe greateſt circumference, which was in the middle, was ſix inches and a half, that of the neck three inches, and near the rattle two inches. The top of the head was flat as in the viper*, and by the protuberance of the jaws it ſomewhat reſembled the head of a bearded arrow. At the extremity of it were the noſtrils; and between them and the eyes, but a little lower, were two other orifices, which the doctor took for ears; but he afterwards found they only led into a bone that had a pretty large cavity, but no perforation. The eye was round, and about a quarter of an inch in diameter, over which there was a large ſcale jetting out, which ſeemed to ſerve it for an eye-lid. The ſcales on the head were the ſmalleſt of any, thoſe on the back the largeſt, increaſing in proportion to the thickeſt part of the body, and thence diminiſhing again to the junction of the rattle, all of them in figure ſomewhat reſembling the ſeed of a parſnip. They were of various colours, thoſe on the head being like the feathers on the back of a green-finch, ſpeckled with ſmall black ſpots, four of which were larger and very remarkable. Thoſe on the back were a dark fillemot and ſpeckled, forming by this mixture a curious chequer-work; but as they grew nearer the end of the tail, they became darker, and at laſt almoſt black. The ſcales on the back had an edged riſing in the middle, which was ſtill leſs protuberant nearer the ſides, where they were flat. The belly was covered with long ſcales of a yellowiſh colour, and ſpeckled with black; but beyond the anus there were ſome ſcales of a lead-colour, and from them to the rattle were ſix rows of ſmaller ſcales of the ſame colour. The ſcales of the belly were joined together by diſtinct muſcles, the lower tendon of each muſcle being inſerted into the upper edge of the following ſcale, and the other tendon of the ſame muſcle inſerted about the middle of the preceding ſcale. To each ſcale a rib was appropriated, whoſe point was joined with the extremity of it, which muſt conſiderably promote the uſe for which nature deſigned them, aſſiſting them to perform their reptile motions; for the ſcales are indeed ſo many feet, which, being free and open below, do thereby take hold of the ground. They move quicker on the rocks than on the earth or plains, becauſe there they have firmer footing; but in ſoft ground, though their belly be flat, they can alter it's figure ſo as to take the deeper hold, as is obſerved in a viper. In a word this coat of armour, which is for their defence, is ſo curiouſly contrived, that, though it covers the whole body, yet by it's frequent jointings it admits the animal to make various motions.

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* Our author, upon the diſſection of this ſnake, found it's parts, both external and internal, ſo much like thoſe of a viper in almoſt all reſpects, that he does not ſcruple to place it in that claſs; and from the rattle, which ſufficiently diſtinguiſhes it from all other ſerpents, to name it vipera caudiſona.

UPON examining the lungs of the rattle-ſnake, which conſiſt only of one lobe, the fore part whereof is full of numerous veſicles, and the latter an intire large bladder, our author takes occaſion to obſerve, that, in animals where reſpiration is not ſo frequent, nature provides a ſufficient ſtore-houſe for the air in ſuch large bladders, whence it is diſpenſed as the animal œconomy requires it; for tortoiſes, vipers, rattle-ſnakes, toads, &c. which ſleep a great part of the year, as previouſly to this repoſe they take in their ſtore of food, ſo perhaps of air too; for, whilſt they remain thus aſleep, and ſometimes dead to all appearance, it may be queſtioned whether they have any motion of thoſe parts which are requiſite to draw in freſh air in inſpiration. And this ſeems to be confirmed by the inſtance of a viper, which remained alive ſome days after the ſkin and moſt of the viſcera were ſeparated, and the lungs were not obſerved all that time to riſe or fall, as in inſpiration and expiration, but appeared equally extended with air; only as ſoon as it died the lungs fell. The ſtomach of this viper was empty, and ſo was that of the rattle-ſnake the doctor diſſected, which for four months at leaſt had eat nothing; ſo that, though they can live a long time without food, air being neceſſary for their ſubſiſtance, they are provided with the receptacles above-mentioned.

THE head of this ſnake is ſmall, but the mouth is very large, and it's tongue in all reſpects like that of a viper, and compoſed of two long round bodies, joined together from the root two thirds of it's length. They are darted out and retracted again with great agility. To facilitate it's exertion, the under jaw is divided for a conſiderable ſpace; for if it were conjoined, as in other animals, and beſet with teeth, they would be apt to injure the tongue, or at leaſt it might prove incommodious to the uſe it is deſigned for, which is ſuppoſed to be the catching of flies, and other ſmall animals it has a mind to devour. Over the tongue lies the larynx, not formed with that variety of cartilages uſual in other creatures, but having a ſort of ſlit for receiving and diſcharging the air, which, paſſing only through ſuch a ſlit, without other organs to modulate it, cauſes the hiſſing ſound emitted by the rattle-ſnake and other ſerpents.

THE teeth are of two ſorts; firſt, the leſſer, which are ſeated in each jaw, and ſerve the rattle-ſnakes for the catching and retaining their food; ſecondly, the poiſonous fangs which kill their prey: and, as they neither chew nor bruiſe their food, but ſwallow it whole, they have no occaſion for grinders. Of the firſt ſort of teeth there are in the lower jaw two rows on each ſide, and five in a row, the inward leſſer than the outward, and in all twenty: in the upper jaw are only ſixteen, five on each ſide placed backwards, and ſix before; and none of thoſe are poiſonous. The fatal fangs are placed without the upper jaw, towards the fore part of the mouth, not faſtened to the jaw-bones, as the other teeth, but to muſcles or tendons, except the two outermoſt and largeſt, which are fixed to a bone which may be taken for the ear-bone. Theſe fangs are not to be perceived on firſt opening the mouth, for they lie flat under a ſtrong membrane or ſheath *, but are to be erected upon occaſion. They are hooked, and in all of them, eſpecially the larger, there is a hole towards the root, and towards the point a very plain ſlit, from whence to the root they are perfectly hollow, as the doctor diſcovered by gently preſſing the ſide of the gum with his finger; for then the poiſon roſe through the hollow of the teeth, and iſſued out at the ſlit. This poiſonous liquor is of a water-colour, lightly tinged with yellow.

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* Mr. Ranby, who diſſected the poiſonous apparatus of a rattle-ſnake, thinks the uſe of this membrane is to prevent the involuntary diſcharge of the poiſon out of the fangs. This gentleman in ſome particulars differs from Dr. Tyſon, but in general his obſervations agree very well with that ingenious anatomiſt.

THUS much may ſuffice for the deſcription and anatomy of the rattle-ſnake. But it ſeems proper to add here a few miſcellaneous obſervations of Mr. Dudley's, who ſays there are three ſorts of this ſnake, diſtinguiſhed by their colour, viz. a yellowiſh green, a deep aſh-colour, and a black ſattin. Both men and beaſts, he aſſures us, are more afraid of a rattle-ſnake than of any other ſerpent, and the eye of this reptile has ſomething in it very ſingular and terrible. Whereas a common ſnake avoids a man, the rattle-ſnake never turns out of the way; but as he creeps with his head cloſe to the ground, and moves very ſlowly, a perſon may eaſily get out of his reach. His leaping and jumping to do miſchief is no more than extending or uncoiling himſelf; for in leaping they do not remove their whole body, as other animals do; ſo that a man is in no danger of them, if his diſtance be more than their length: nor can they do any harm when they are in their ordinary motion, till they firſt coil and then extend themſelves, which are both done in a moment's time. They are always coiled when they reſt or ſleep, and they are obſerved to be exceeding ſleepy.

THE ſame author informs us, that theſe ſnakes make the greateſt rattling in fair and clear weather, and when it is rainy they make none at all; ſo that the Indians do not care to travel in the woods in time of rain, for fear of getting amongſt them before they are aware. Another circumſtance of their rattling has been obſerved, viz. that if a ſingle ſnake be ſurpriſed and rattles, and there be others near him, they all take the alarm, and rattle in like manner.

THEIR common food is toads, frogs, ground-mice, crickets, graſshoppers, and other inſects; and the rattle ſnakes themſelves ſerve for food to bears,

bears; and even hogs will eat them without harm. They are viviparous †, and uſually bring forth about twelve.—They caſt their ſkins every year, and generally den among the rocks in great numbers together. They retire on the approach of winter, and come abroad the beginning of next ſummer; at which time the hunters watch them, and, as they come out to ſun themſelves, kill them by hundreds.

Let us now conſider the ſurpriſing effects of the rattle-ſnake's poiſon, which is unqueſtionably one of the moſt ſubtile and dangerous in the whole animal kingdom. Of this we have ſome extraordinary inſtances given us by captain Hall, who, being in South-Carolina, procured a fine healthful rattle-ſnake, about four feet long, and with one Mr. Kidwell, a ſurgeon, and three or four other gentlemen, made ſeveral experiments to try the effects of it's poiſon. They got three cur-dogs, the largeſt not bigger than a common harrier; and, the ſnake being tied and pinned down to a graſs-plat, they took the largeſt of the dogs, and, having tied a cord round his neck ſo as not to ſtrangle him, the captain held one end, and another perſon the other. Immediately on bringing the dog over the ſnake, he raiſed himſelf near two feet, and bit the dog as he was jumping. The dog yelped, by which the captain perceived he was bitten, and, pulling the dog to him as faſt as he could, he found his eyes fixed, his tongue between his teeth, which were cloſe; his lips drawn up ſo as to leave his teeth and gums bare; and, in ſhort, he was quite dead in a quarter of a minute. They could not ſee where the bite was, nor obſerve any blood; upon which ordering ſome hot water to ſcald the hair off, they diſcovered only one puncture, with a bluiſh-green colour appearing a little round it. This was juſt between his fore legs and his breaſt, where the hair was thinner than in ſome other places.

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† This is a confirmation of the rattle-ſnake's being of the viper kind, for it is obſerved, that vipers bring forth their young alive, whereas common ſnakes lay their eggs in dunghills, or other places proper to hatch them by their warmth, and therefore are reckoned amongſt the oviparous animals.

HALF an hour after this they took a ſecond dog, which was ſomewhat ſmaller, and brought him in like manner over the ſnake, which bit his ear, ſo that all the company ſaw it. The dog yelped much, ſhewed ſigns of being very ſick, reeled and ſtaggered about for ſome time, then fell down and ſtruggled as if convulſed, and for two or three times got up, each time wagging his tail, though ſlowly, and endeavouring to follow a negro-boy, who uſed to make much of him. They put him into a cloſet, and ordered the boy to look after him, who brought word in two hours that the dog was dead.

ABOUT an hour after the ſecond dog was bitten, they took the third in like manner, which the ſnake bit on the right ſide of the belly, ſo that he drew blood. The dog for about a minute did not ſeem to be hurt, ſo they let him go, and ſaw no more of him; but the next day a woman, who owned him, came to the captain, complaining of his cruelty for killing her dog.

FOUR days afterwards they got two dogs, as big as common bull-dogs; and the firſt, which the ſnake bit on the inſide of his left thigh, died exactly in half a minute, according to the watches of two gentlemen preſent. There were two very ſmall punctures in his thigh, which looked livid, though no blood was drawn.—The ſecond dog was bit about an hour after the firſt, on the outſide of his thigh, where they perceived blood at two places; he ſoon ſickened, and died in four minutes.—As they thought the ſnake's poiſon was not ſpent, they got a cat, which he bit an hour after. She was very ſick, and they put her in a cloſet; but by ſome means or other ſhe got out, and the next morning was found dead in a garden.

A month after theſe experiments were made, the captain procured a common black ſnake, not of the viper-kind, about two feet and a half long, and juſt taken; and, putting this and the rattle-ſnake together, he irritated them ſo that they bit each other. He perceived that the black-ſnake had drawn blood of the rattle-ſnake before he took them aſunder; the black ſnake died in leſs than eight minutes, but the rattle-ſnake did not ſeem ſick, or at all the worſe for his wound.

THE laſt experiment the captain made with this ſnake was to try whether his poiſon would not prove mortal to himſelf. In order to this he hanged him in ſuch a manner that he was not above half his length on the ground, and then ſo irritated him by pricking and ſcratching him with two needles faſtened to the end of a ſtick, that he ſoon bit himſelf, after having ſeveral times attempted to bite the ſtick. He then let him down, and he was quite dead in eight or ten minutes. The ſnake was then cut into five pieces, and given to a hog, the head part firſt, in the ſight of ſeveral people. The hog eat up all the ſnake, and ten or twelve days afterwards the captain ſaw the hog alive and healthful; which confirms the account of Mr. Dudley above-mentioned.

WE might give many other inſtances of the ſtrange effects of this ſubtile poiſon, but theſe are abundantly ſufficient. As to the cure of the bite of the rattle-ſnake, it is natural to think, that, if death follows it in ſo ſhort a time, no remedy can reaſonably be expected: but why might not olive-oil, if immediately applied to the wound, be as certain a cure in this caſe, as it has been found to be for the bite of a viper *, eſpecially as the rattle-ſnake is of that kind, and probably their poiſons much of the ſame nature? However, be this as it may, it is wiſely ordered by Providence, that the countries infeſted by theſe noxious animals produce effectual antidotes againſt their poiſons; and the Americans are not without a ſpecific even againſt the moſt ſudden efforts of this dangerous poiſon, viz. the ſerpentaria, or ſnake-root, of which there are various kinds, as that of Virginia, that of Braſil, that of Canada, &c. Thoſe who travel or hunt in the woods carry this root conſtantly about them, to chew and ſwallow as ſoon as they are bit by a rattle-ſnake, the ſtagnation of the blood being prevented by it's peculiar activity. Nay, we are told, this root not only cures the bite of the rattle-ſnake, but that the animal flies at the ſmell thereof; for which reaſon travellers carry it with them on the end of a ſtaff, to preſent towards the ſnake if he chance to come in their way.

The account we have of the diſcovery of the virtue of this root in curing the bite of the rattle-ſnake is this: A nation of the northern Indians, called Senekkas, obſerving that the root and flowers reſembled the rattle of the ſnake, concluded that Providence had impreſſed that characteriſtic to point out it's uſe. Theſe Indians, returning from a war with a ſouthern nation, called Cata-

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* See remarkable inſtances of this kind in Vol. V. p. 26—28.

whaes, in the year 1712, communicated the efficacy of this root to a planter on the frontiers of Virginia, who imparted it to his neighbours, and ſo it was ſoon known through thoſe parts of America. And hence a particular ſpecies is named Senekka rattle-ſnake root, to diſtinguiſh it from other ſpecies which are much inferior in virtue.

AFTER all, ſo ſpeedy are the terrible effects of this ſnake's poiſon in many inſtances*, that it is the opinion of Capt. Hall, a judicious and obſervant perſon who lived ſeveral years in Virginia, that the ſafeſt and ſureſt way of cure is to cut out immediately the part where the wound is made; for he has ſeen ſeveral, who, following that method upon being bit, have carried hollow ſcars about them, as marks of the narrow eſcapes they had had, and they never felt any inconveniency afterwards.

BUT, though we have ſaid ſo much of the rattle-ſnake, we have not yet done with that animal; for, beſides the ſurpriſing effects of it's poiſon, there are others attributed to it's eyes almoſt equally aſtoniſhing, which ought not to be paſſed over in ſilence. The effects that we mean are ſaid to be produced by a certain faſcinating or bewitching power in the eyes of the rattle-ſnake, which, by keeping them fixed on any ſmall animal, as a ſquirrel, a bird, or the like, though ſitting on the branch of a tree, at a conſiderable height, can draw ſuch animal down into it's mouth. This perhaps may ſeem utterly incredible to people who have never heard or conſidered any accounts of this nature; but it is commonly aſſerted that all ſorts of ſnakes have ſome degree of this faculty of charming or faſcinating other animals by looking ſtedfaſtly upon them.

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* To the inſtances already given of the ſtrength and virulence of this poiſon on animals, let us add another of the ſame on a vegetable body, which is mentioned by Col. Beverly, who ſays he was informed by Col. Taylor, that, being in company with others in the woods, they found a rattle-ſnake, and cut off his head. Then with a green ſtick which he had in his hand, about eighteen inches long, the bark of which was newly peeled off, he urged and provoked the head, till it bit the ſtick with fury ſeveral times; whereupon the colonel obſerving ſmall green ſtreaks riſe up along the ſtick towards his hand, he threw it on the ground, and in a quarter of an hour it ſplit into ſeveral pieces, and fell aſunder from end to end.

Col. Beverly tells us, that, as he was hunting in the woods, and had ſtrayed from his companions, he was entertained at his return with an account of a pleaſant rencounter between a dog and a rattle-ſnake about a ſquirrel. The ſnake had got the head and ſhoulders of the ſquirrel into his mouth, which being ſomething too large for his throat, it took him up ſome time to moiſten the furr of the ſquirrel with his ſpawl, to make it ſlip down. The dog took this advantage, ſeized the hinder parts of the ſquirrel, and tugged with all his might. The ſnake on the other ſide would not let go his hold for a long time, but at laſt gave up his prey, and the dog eat the ſquirrel without any injury.

The ſame gentleman aſſures us, that ſeveral perſons have ſeen ſquirrels run down a tree directly into a ſnake's mouth; and have alſo ſeen birds fluttering up and down, and chattering at theſe ſnakes, till at laſt they dropped down before them. But, beſides the relations of others, he gives a very remarkable inſtance of this faſcination, whereof he himſelf was an eye-witneſs, with two other perſons in company. Having ſtopped at an orchard by the ſide of the road, they were entertained (he tells us) with the whole proceſs of a charm between a rattle-ſnake and a hare, the hare being better than half-grown. It happened thus: One of the company, ſearching for the beſt cherries, ſpied the hare ſitting, and though he went cloſe by her ſhe did not move, till he (not ſuſpecting the occaſion of her tameneſs) gave her a laſh with his whip; upon which ſhe ran three or four yards, and there ſat down again. The gentleman, not finding the fruit ripe, immediately returned the ſame way; and near the place where he ſtruck the hare he ſpied a rattle-ſnake. Still not ſuſpecting the charm, he went back about twenty yards to a hedge, to get a ſtick to kill the ſnake; and at his return he found the ſnake removed and coiled in the ſame place from whence he had moved the hare. This put him into the thought of looking for the hare again, and he ſoon ſpied her about ten feet diſtant from the ſnake, in the place to which ſhe had ſtarted when he whipped her. She was now lying down, but would ſometimes raiſe herſelf on her fore feet, ſtruggling as it were for life, to get away, but could never raiſe her hinder parts from the ground; and then ſhe would fall flat on her ſide again, panting vehemently. The hare and ſnake were in this condition when our author was called, who ſays, that, though all three went within five yards of the ſnake to have a full view of the whole, the ſnake did not take the leaſt notice of them, nor ſo much as give a glance towards them. There they ſtood at leaſt half an hour, the ſnake not altering one jot; but the hare often ſtruggled to get up and fell on it's ſide again, till at laſt ſhe lay ſtill for ſome time as dead. Then the ſnake moved out of his coil, and ſlid gently and ſmoothly towards the hare, his colours at that inſtant being ten times more glorious and ſhining than at other times. As the ſnake moved along, the hare happened to make another ſtruggle, upon which the ſnake made a ſtop, lying at his length till the hare was quiet, and then he advanced till he came up to the hare's hinder parts, which in all this proceſs had been towards the ſnake. There he ſurveyed the hare all over, raiſing part of his body above it; then he turned off and went to the noſe, and after that to the ears, which he took into his mouth one after the other, working them as a man does a wafer to moiſten it. He then returned to the noſe, and took the face into his mouth, ſtraining and gathering his lips, ſometimes on one ſide, and ſometimes on the other. At the ſhoulders he was along time puzzled, often pulling and ſtretchingthe hare out at length, till at laſt he got the whole body into his throat. The ſpectators then advanced, and our author, taking the twiſt-band off his hat, made a nooſe, and put it about the neck of the ſnake. This at laſt made him very furious; but having ſecured him they put him into one end of a wallet, and carried him on horſeback five miles to the houſe where they lodged that night; and next morning they killed him, and took the hare out of his belly. The head of the hare began to be digeſted, and the hair to fall off, having lain in the ſnake's belly about eighteen hours.

Here ſeems to be a plain inſtance of the faſcinating or inchanting power in the rattle-ſnake; but Sir Hans Sloane thinks the whole myſtery of the affair is chiefly this, that, when ſuch animals as are the proper prey of theſe ſnakes, as ſmall quadrupeds, birds, &c. are ſurpriſed by them, they give them a bite, and the poiſon allows them time to run a ſmall way, or perhaps a bird to fly up into the next tree, where the ſnakes watch them with great earneſtneſs till they fall down, or are perfectly dead, when, having licked them over with their ſpawl or ſpittle, they ſwallow them down.

Now we grant that Sir Hans's conjecture is natural enough, and perhaps the hare above-mentioned might have been ſurpriſed and bit by the rattle-ſnake, before it was affected in ſuch a manner: but ſtill there are many inſtances of what we call faſcination, not only in the rattle-ſnake but in other animals, where no previous bite or other injury has been received by the animal inchanted. Dr. Sprengell's account ſeems to be ſuch an inſtance, who tells us, that at Milan he met with a viper-catcher who generally kept a conſiderable number of theſe animals alive in a back room open at top; and, having one day got a female viper big with young, a mouſe was thrown in amongſt them; but of the whole number of vipers, which were upwards of ſixty, not one concerned himſelf in the leaſt about the mouſe, till the pregnant female viper and the mouſe interchanged eyes, as the doctor expreſſes it. Upon this the mouſe ſtartled; but the viper raiſed her head, and turned her neck into a perfect bow, her mouth open, her tongue playing, her eyes all on fire, and her tail erect. The mouſe ſeemed ſoon recovered of it's fright, and would take a turn or two, ſometimes more, pretty briſkly round the viper, giving now and then a ſqueak, till at laſt it ran ſwiftly into the chops of the viper, and gradually ſunk down the gullet. All this while (adds the doctor) the viper never ſtirred out of her place.

If this be not ſufficient to prove the faſcinating power of ſome animals, take another inſtance from a late author, who aſſures us he has ſeen a mouſe running round a large toad, which ſtood looking earneſtly at it, with it's mouth open. Still the mouſe made leſs and leſs circles about the toad,

oad, crying all the while, as if compelled thereto; and at laſt, with a great deal of ſeeming reluctance, ran into the gaping mouth and was ſwallowed.

SOMETHING of this kind almoſt every one may have obſerved in the ſetting-dog, the effects of whoſe eye on the partridge are very remarkable. The poor bird, when once it's eyes meet thoſe of the dog, ſtands as if confounded, regardleſs of itſelf, and eaſily lets the net be drawn over it. And we have read of ſquirrels ſo ſtupified and overcome by a do[illegible] ſtaring hard at them, that they have dropped from the tree into his mouth.—Add to this, that man is not ſecure from the like affections, as almoſt every one knows from experience; for there are few people but have, one time or other, felt the effects of an angry, a fierce, a commanding, a diſdainful, a laſcivious, an intreating eye, &c. And it is chiefly owing to this ſort of faſcination (if we may be allowed a little pleaſantry) that the beautiful women of Lancaſhire have obtained the name of witches.

AMONGST the curious animals of North America we may reckon the little inſect which affords that valuable drug called cochineal, of great uſe in dying crimſons and ſcarlets, and eſteemed in medicine as a cardiac and alexipharmic. Naturaliſts have been ſtrangely divided with reſpect to the origin of cochineal, ſome referring it to the vegetable, and others to the animal kingdom; to which laſt it is now proved to belong by inconteſtable evidence: For, a diſpute ariſing between Melchior de la Ruuſcher and a friend of his on this ſubject, the former procured from Antequera in New Spain (the place where there is the greateſt trade for this drug) the atteſtations upon oath of eight perſons, who had been for many years immediately employed in managing and propagating cochineal, from whence we learn the following particulars. Firſt, they are ſmall animals, with a beak, eyes, feet, and claws; that they creep, climb, ſeek their food, and bring forth young, without that transformation obſervable in ſilk-worms and other inſects. When they firſt begin to move they are no larger than nits or ſmall mites, or the point of a needle; but, when come to maturity they reſemble a dog's tick both in ſize and figure. Thus far is certain, but the manner of their generation is doubtful; though it is commonly believed by thoſe who cultivate them, that they are impregnated by a ſmall butterfly, which is bred upon the nopal, (the plant they feed upon) and which is obſerved to paſs and repaſs over them frequently.

WHEN theſe little animals can bear the open air, which is early in the ſpring, they ſoon grow large enough to produce young ones; at which time they put twelve or fourteen together into a paſtle or little neſt, made of fine ſoft hay or ſtraw, or the moſs of trees, or the down that immediately incompaſſes the cocoa-nut. Theſe neſts are placed upon the nopal, or prickly Indian fig-tree, which is carefully cultivated for this purpoſe; and in three or four days a great many young ones are produced, after which the old ones die. The young ones, coming out of their neſts, climb up the nopal, fix themſelves to it, and ſuck it's juice, which is their only nouriſhment, for they do not eat the plant; and therefore they ſeek out thoſe parts of it that are greeneſt and fulleſt of juice, taking care to place themſelves ſo as to be ſcreened from the wind and weather. During this time, whilſt they are growing up and become pregnant, great care is taken that no vermin incommode or ll t hem, and alſo to keep them clean, and diſengage them from certain threads like cobwebs, that grow upon the nopal. They are likewiſe to be ſheltered from too much heat or cold, and from the rain and wind, for the fineſt of theſe inſects are very tender. The wild ſort indeed bear all theſe inconveniencies; but then they are gritty, of an ill ſmell, and of little value.

As to the gathering of cochineal, they firſt take the females, which die in the neſts, after having brought forth their young; and three or four months after this, as the ſeaſon permits, when the firſt young ones are become large enough to bring forth, and have produced ſome few, the Indians carefully gather them off the nopal with a ſmall bruſh like a pencil. Being thus collected, the little creatures are killed by hot water or fire, and are called the ſecond gathering, or rather the firſt of the young ones that have been nouriſhed and raiſed in the open air. In three or four months more they gather the ſecond brood of thoſe that have been brought forth upon the nopal, and have likewiſe produced ſome young ones; which is done much in the ſame manner as before, only now they take from the plant a great many young ones with their parent inſects; and, from the number of ſmall ones found amongſt this gathering of cochineal, it is called granilla. In the mean time they keep a number of theſe young ones alive upon the nopals, which they pluck up or cut down, and take them into their houſes, in order to nouriſh the inſects during the rainy ſeaſon. Laſtly, when theſe are grown large, they put them into the paſtles, and proceed in the manner above related; ſo that they uſually make three gatherings in a year.

The manner of planting the nopal, is, by making rows of holes about half a yard deep, and two yards diſtant from each other. In each of theſe holes are placed one or two leaves of the Indian fig-tree, in a flat poſition, and then they are covered with earth. This leaf ſoon ſhoots up into a ſingle ſtem, which, during it's growth, divides into ſeveral branches, which ſucceſſively produce freſh leaves, the largeſt being neareſt the ſtem, and full of knots, as are alſo the branches; and from theſe the leaves have their origin. The plant ſeldom exceeds three yards in height; it's bloſſom is ſmall, of a bright red, and in the ſhape of a bud, from the center of which proceeds the fruit. When the fig is ripe, the outward ſkin becomes white, and yet the pulp is ſo fully impregnated with a deep red, as to tinge the urine of thoſe who eat it; yet few fruits are more pleaſant and wholeſome. It is remarkable that this inſect does not, in any viſible manner, injure the plant, it extracting it's nouriſhment from the moſt ſucculent juice, which it ſucks, by means of it's proboſcis, through the fine teguments of the leaves.

THEY have three ways of killing theſe inſects, in hot water; in little ovens made for that pupPoſe; or by roaſting them upon flat ſtoves with fire under them, ſuch as the Indian women uſe to bake their bread. Theſe three different methods give the cochineal three different colours. The firſt makes it of a brown red, the hot water taking off the whiteneſs that covers the inſect when alive. The ſecond makes them of an aſh-colour, and marbled; and the third makes them black as if they had been burnt.—Of the old ones that die after bringing forth their young, four pounds, when dried, produce but one, or rather one pound is reduced to four ounces: but three pounds only of the living ones, that have been carefully taken off the nopals, being killed and dried, produce the ſame quantity.

However, it ſeems proper to obſerve, that, though cochineal is now known to be produced by an animal, there is a berry growing in America which yields a dye almoſt as beautiful as that of the inſect. The firſt ſhoots of the tree produce a yellow flower, then comes the fruit, which is long, and opens when ripe with a cleft of three or four inches. This fruit is full of kernels or grains, which fall on the leaſt agitation, and are carefully gathered up by the Indians. Eight or ten of theſe fruits will yield about an ounce of grain; and a perſon may eaſily take it for the animal cochineal, but this laſt is much the moſt eſteemed.

As we are now ſpeaking of inſects, it may not be amiſs to introduce here an account of a method in New England of diſcovering the hives or neſts of bees in the woods, in order to get their honey. For this end the hunter (as we may call him) in a clear ſun-ſhiny day takes a plate or trencher with a little ſugar, honey, or molaſſes, and, when got into the woods, he ſets it down on a rock or ſtump of a tree. This is ſoon found out by the bees, which are generally ſuppoſed to ſmell honey or wax at above a mile's diſtance. When they are gathered about the plate, and have fed a little while, the hunter ſecures a few of them in a box or other conveniency; and after a ſhort time he lets one of them go, obſerving very carefully the courſe he ſteers; for, after he riſes in the air, he flies directly on upon a ſtrait courſe to the tree which contains the hive or neſt. Now, the hunter being provided with a pocket-compaſs, a rule, and other implements, with a ſheet of paper, he ſets down the courſe of the bee, ſuppoſing it weſt, or any other point; and by this he is ſure the tree muſt be ſomewhere in the weſt line from his ſtation: but, to know the exact diſtance he removes from thence either north or ſouth, ſuppoſe a hundred perches, or, if it be more, it will be the more exact, becauſe the angle will not be ſo acute. He then lets go another bee, obſerving the courſe carefully; for this, like the firſt, after mounting to a convenient height, flies directly to the hive; ſo that the hunter has nothing to do but to find where the courſes of the firſt and ſecond bee interſect each other, and there is the tree where the honey is lodged.

ALL this is founded on the ſtraight or direct motion of bees when bound home with their honey, which is found to be certain by the conſtant obſervation and experience of the hunters, who of late have uſed this mathematical way of finding honey in the woods with great ſucceſs. But it is worth obſerving, that all the bees they have either in their gardens or woods, which are now in great numbers, are the produce of ſuch as were carried from England about a hundred years ago; for the firſt planters in New England, as Mr. Dudley informs us, never obſerved a bee in the woods till many years after the country was ſettled: And what proves this beyond diſpute is, that the Indians have no word in their language for a bee, as they have for all animals that are natives of the country, and therefore uſed to call a bee by the name of the Engliſhman's fly.

WE have long ago deſcribed the whales that are found in the ſeas of Greenland, and the method of taking them*; but there are ſeveral curious particulars relating to thoſe found on the coaſt of New England, which Mr. Dudley has obliged us with, and which ought by no means to be omitted. There are ſeveral ſorts of whales on this coaſt, of which the moſt remarkable are the true whale, or that which yields the whalebone, and another which furniſhes us with the ſpermaceti. The whalebone whale is ſixty or ſeventy feet long, (for theſe are not ſo large as thoſe of Greenland) and very bulky, having no ſcales, but a ſoft ſmooth ſkin, and no fins, except one on each ſide, from ſix to eight feet in length, which they are not obſerved to uſe, unleſs in turning themſelves, and while they are young, and are carried by their dam on the flukes of their tails; for then with thoſe fins they claſp themſelves round about her, otherwiſe they would be in danger of falling off. This fiſh when firſt brought forth, is about twenty feet long, and of little value, but then the dam is exceeding fat. At a year old, when they are called ſhort-heads, they are very fat, ſo as to yield about fifty barrels of oil; but by that time the dam is very poor, and will not yield above thirty barrels, though of a large ſize. When two years old they are called ſtunts, being ſtunted after weaning, and then generally yield from twenty-four to twenty-eight barrels. After this they are called ſcull-fiſh, their age not being known, but only gueſſed at by the length of the bone in their mouths. This grows on each ſide of the upper jaw, and is ſometimes ſix or ſeven feet in length. A good large whale has yielded a thouſand weight of bone, a hundred and thirty barrels of oil, and near twenty out of the tongue alone.

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* See Vol. III. p. 5—8.

The whale producing ſperma-ceti, or parmafitty, as it is commonly called, is much of the ſame dimenſions with the former, but is of a greyiſh colour, whereas the others are black. He has a bunch on his back as big a man's head, and is diſtinguiſhed from the former kind of whale by having no whalebone in his mouth, inſtead of which there are rows of fine white teeth in each jaw, five or ſix inches long. Our author ſent the Royal Society one of theſe teeth, taken from a whale forty-nine feet long, and whoſe head yielded twelve barrels of ſperma-ceti oil. Theſe are more gentle than the other ſpecies of whales, and ſeldom fight with their tails, but, when ſtruck uſually turn upon their backs and fight with their mouths. The oil made of the body of this fiſh is much clearer and ſweeter than that of other whales.

THE ſperma-ceti, as our author calls it, which makes this fiſh ſo valuable, lies in a large trunk four or five feet deep, and ten or twelve feet long, near the whole depth, breadth, and length of the head, in the place of the brains, and ſeems to be the ſame, it being diſpoſed in ſeveral membranous cells, and covered with a thick griſtly ſubſtance below the ſkin, through which they dig a hole, and take out the clear oil. It is found indeed in other parts of the fiſh, but not in ſo large quantities nor ſo good as in the head, where it is thoroughly prepared by nature; and it is affirmed that this trunk or cavity will yield from ten to twenty barrels, and the whole fiſh from twenty to fifty barrels of the common oil.

THE ancients were great ſtrangers to the origin of the ſperma-ceti, inſomuch that Schroder ſeems to doubt whether to reckon it an animal or mineral ſubſtance. And indeed the method of preparing it at preſent is a ſecret in the hands of a few perſons, according to Pomet, who deſcribes the proceſs to be as follows. The oil or brain, being taken out of the animal, is melted over a gentle fire, and put into moulds like thoſe wherein ſugar-loaves are formed. When cold and drained it is melted over again; and in this manner they proceed till it be well purified, and become very white. Then with a knife, made for that purpoſe, it is cut into ſcales or flakes, ſuch as we have it from the druggiſt. Now Pomet may poſſibly be right as to the proceſs generally uſed, but Dr. James ſays he has ſeen ſperma-ceti which has undergone no treatment at all, except being put into paper-bags, ſo that the oil that adheres to it might be abſorbed.

The true ſperma-ceti is very white, and in very ſmall flakes, which by rubbing upon the hand diſſolve into a ſort of oil, and do not adhere to the palate when chewed, as the common ſort will, which is probably adulterated with wax or ſome other ſubſtance. In many caſes ſperma-ceti is a noble medicine, but is principally uſed in bruiſes, inward hurts, and after delivery. It is an excellent balſamic in diſorders of the breaſt; and in coughs, ſharp rheums, &c. it is very ſafe, pleaſant, and effectual; as alſo in pleuriſies and inward impoſthumations. Outwardly uſed, it is emollient and healing; but it's greateſt uſe this way is in the ſmall-pox, melted with the oil of almonds. With this the puſtules are juſt kept moiſt when they begin to harden; and it wonderfully prevents thoſe ſcars they are apt to leave behind them. It is ſometimes alſo uſed as a coſmetic by the ladies, both in paints and waſhes; and candles are likewiſe made of it, which are ſuperior to the fineſt wax-candles in colour and luſtre.

The people of New England, ſays Mr. Dudley, uſed formerly to kill the whales near the ſhore;

but now they go off to ſea in ſloops and whale-boats, in May, June, and July, between Cape Cod and Bermudas, where they lie by in the night, and ſail to and again in the day-time, and ſeldom miſs of them. The beſt ſeaſon for taking the whalebone kind is from the beginning of February to the end of May, and for the ſperma-ceti whale from the beginning of June to the end of Auguſt.—The boats they uſe in purſuing the whale are made of cedar clap-boards, and are ſo very light that two men can eaſily carry them, though they are twenty feet long, and contain ſix men, viz. the harpooneer, four rowers, and the ſteerſman. Theſe boats run very ſwiftly, and by reaſon of their lightneſs can be readily brought on and off, and ſo kept out of danger. Sometimes the whale is killed with a ſingle ſtroke, and ſometimes will hold the whalemen in play for half a day together, and even make their eſcape after they have been lanced and have ſpouted blood, which is a ſign they have received their mortal wound. The bone-whales have two ſpout-holes, but the ſperma-ceti whales have only one.

THE prodigious ſtrength of the whale lies chiefly in his tail, of which Mr. Dudley and other authors give us variety of inſtances. A boat has been cut down from top to bottom with the tail of a whale, as if cut with a ſaw, the boards being ſcarce ſplintered. An oar has been cut off while a man had it in his hand, without feeling the leaſt jarring.—But one inſtance of the ſtrength of this animal, as related by Mr. Dudley, will be ſufficient, inſtead of many that might be added. Some years ago one of the fin-back whales, a ſpecies found on the coaſt of New England, came into a harbour near Cape Cod, and towed away a ſloop of about forty tons out of the harbour into the ſea. It is ſuppoſed the whale was rubbing herſelf againſt the fluke of the anchor, or accidentally got the fluke of the anchor into the orifice of the uterus, and, finding herſelf caught, tore away with ſuch violence, that ſhe towed the ſhip out of the harbour as faſt as if it had been under ſail with a good gale of wind, to the aſtoniſhment of the people on ſhore, for there was nobody on board the veſſel. When the whale came into deep water, ſhe plunged downwards, and had like to have carried the ſloop along with her; but the cable gave way, and ſo the ſloop was recovered and brought back into the harbour. This whale was found dead ſome days after upon the ſhore, with the anchor ſticking in her belly.

THE whalebone whales are generally ſuppoſed to live upon ſome oozy matter they ſuck up from the bottom of the ſea; but an experienced fiſherman told Mr. Dudley, that he had obſerved this whale, in ſtill weather, ſkimming on the ſurface of the water, to take in a ſort of reddiſh ſpawn that ſometimes lies on the ſea for a mile together. The ſperma-ceti whale, beſides other fiſh, feeds much upon a ſmall fiſh, which has a kind of bill, and is called by the fiſhermen a ſquid-fiſh. The fin-back whale, which has a larger ſwallow than the other ſpecies, lives on mackarel, herrings, and ſuch ſort of fiſh, great ſhoals of which he will run through, and with a ſhort turn cauſe an eddy or whirlpool, whereby the fiſh are brought into a cluſter, and the whale will take in ſome hundreds of them at a time.—It is to be noted, that, though whales are gregarious, and are ſometimes ſeen a hundred in a company, the ſeveral kinds do not mix with one another, but keep by themſelves.

IN ſpeaking of the whales of Greenland we obſerved, that theſe animals copulate much like quadrupeds, bring forth their young alive, and ſuckle them with their milk [*]; and this is confirmed by Mr. Dudley's account of the New-England whales, which are therefore termed bull, cow, and calf. When the female couples with the male, ſhe throws herſelf upon her back, ſinking her tail, and ſo the male ſlides up, and then ſhe claſps him with her fins. They bring forth but one at a time, and only every other year, and are ſuppoſed to go with young about nine or ten months. The calf or young whale has been found perfectly formed in the dam when not above ſeventeen inches long, and white; but, when brought forth, it is uſually twenty feet long as already mentioned, and of a black colour. The female has two teats, ſix or eight inches long; and, when ſhe ſuckles her young, ſhe turns herſelf almoſt upon her back, upon the ſurface of the water. Her milk is white, and, upon opening a young ſucking whale, it has been found curdled in his bag, juſt like that of a calf. For the firſt year they all ſuck the dam, but live, after they are weaned, in the manner above related.

THE care the females take of their young is very remarkable. They not only carry them on their tails, and ſuckle them, but often riſe with them to the top of the water for the benefit of the air, and when they are chaced they will not ſtrike with their tail; but, if the young one happens to drop off, the dam turns about, and paſſing underneath takes it on again. If their young be ever ſo much wounded, as long as they perceive any life in them, they never forſake them; and therefore care is taken, by thoſe who kill theſe fiſh, not to kill the young one, till they have firſt ſecured the dam; for if, the young whale be killed firſt, the dam grows ſo very outrageous that it is almoſt impoſſible to manage her. When purſued, they will keep under water for half an hour or more; but, if a female have a young one on her tail, ſhe riſes oftener, that it may take breath; otherwiſe, when not diſturbed, they uſually riſe and blow about once in a quarter of an hour, ſpouting out water, and drawing in freſh air.

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[*] See Vol. III. p. 6.

Mr. Dudley farther informs us of a ſort of fiſh that prey upon whales, often killing the young ones, though they ſeldom venture upon the old ones, unleſs they are much wounded. The whalemen of New England call theſe fiſh whale-killers, for they go in company by dozens, and will ſet upon a young whale and bait him like ſo many bull-dogs, ſome laying hold of his tail, others of his head, and ſo bite and worry him, till, being heated he lolls out his tongue, which ſome of them are ſure to catch at; but, if they miſs their aim, they faſten on his lips, and thus torture him till they have killed him. When they have done this, they feed chiefly on his tongue and head, but leave him when he begins to putrify. Theſe killers are from twenty to thirty feet long, and have teeth in both jaws that lock within each other. They are of ſuch vaſt ſtrength, that, when ſeveral boats together have been towing a dead whale to ſhore, one of them has faſtened his teeth in it, and dived with it in an inſtant to the bottom.

Before we diſmiſs this ſubject, it ſeems proper to add Mr. Smith's account of the ſword-fiſh * and thraſher, two allied enemies of the grampus,

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* See a deſcription of the ſword-fiſh in Vol. III. p. 10, where we have alſo taken notice of it's enmity to the whale.

a ſpecies of whale frequenting the ſeas of North America. He ſays he has often been an eye-witneſs of the battles between theſe allies and their common enemy the grampus, who as naturally encounter each other when they meet at ſea, as the elephant and rhinoceros do at land. The ſword-fiſh gets underneath the grampus, and pricks him in the belly, till he riſes to the ſurface of the water; and then the thraſher mounts his back, and beats him ſharply with his tail. Our author was once within leſs than a hundred yards of a fight between theſe creatures, and aſſures us they cauſed the ſpray of the ſea to fly up very violently all round them; but, to the beſt of his diſcernment, the thraſher ſeemed to fight with a weapon about three yards long, like a monſtrous broadſword, iſſuing from his noſe, and not with his tail, as is commonly reported.

THE mention of theſe fiſhes, which are in a perpetual ſtate of war with each other, puts us in mind of the dolphin and flying-fiſh, which are common in the American ſeas, and indeed in many parts of the Atlantic ocean. The flying-fiſh, according to Sir Hans Sloane, is of the herring-kind; but Mr. Smith deſcribes it as ſomewhat longer than a herring, and ſomewhat thicker and rounder in body. It has a fin on each ſide cloſe to the gills, about four inches long, being broadeſt as well as a little rounded at the extremity. When theſe fiſhes are chaced by a dolphin, or other fiſh of prey, they evade the purſuit by flying out of the water; and this flight they continue ſo long as their fins keep wet enough, which is perhaps for thirty or forty yards †, and uſually in a ſtraight line. They move their fins as nimble as bees do their wings, ſo as ſcarce to be perceived; and, as they are of a very bright ſhining colour, they look exactly like ſo many pieces of poliſhed ſilver darting through the air. Their ſight, Mr. Smith ſuppoſes, is not extraordinary good when they are out of the water, becauſe two or three of them fell upon the ſhip he was on board of, in which caſe they are utterly diſabled from riſing again; but why might not this proceed from their fins growing dry, and rendering them incapable of flying any farther?

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† Mr. Moore, who ſaw abundance of theſe fiſh in his voyage to Africa, gives the ſame account as to their flying no longer

Mr. Grose obſerves, that he doubts whether what is called their flight is not more properly an extended leap, like that of the flying-ſquirrels on ſhore, to whom the expanſion of a membranous fold, that makes part of the ſkin of their hind legs, ſerves for a kind of wings; and that their neceſſity of replunging into the water, is not ſo much owing to their fins drying, in ſo ſhort a ſpace as twenty-five or thirty yards, as to the force of their ſpring being ſpent. There are many fiſh, beſides theſe, that take very conſiderable leaps out of the water, though not of ſuch a length as they do, from their ſide fins not being ſo well adapted for the continuance of a motion, compounded of flying and leaping. So far is certain, he adds, that they have no guidance from their ſight, but are urged headlong onward by a mechanical impulſe, inſomuch that they do not unfrequently fall into ſhips, and eſpecially in the chains, which, being lower than any part of the gunnel, ſtop and receive them. They are very well taſted, and often

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longer than their fins are wet; but he believes ſome of them flew half a mile on a ſtretch.

ſeen in great ſhoals flying from the purſuit of the bonitos, dolphins, and albacores, whoſe choice prey they ſeem to be, very few of thoſe fiſhes being caught, without ſome of them being found in their ſtomachs. Nor does this fiſh find enemies only in it's own element; for ſeveral ſea-birds watch, hovering for it's emerſion, and dart down on it with ſuch rapidity, as to make it their prey, before it's replunge; ſo that it ſuffers a fatal perſecution in both elements.

THE dolphin, according to Sir Hans Sloane, is a very ſtraight-bodied fiſh, and not that crooked animal he is uſually repreſented by painters. His head indeed is exactly the ſame as it is drawn in pictures and on ſigns; but, being thickeſt at the gills, his body grows gradually taperer quite down to the tail, from the extremity of which to the end of the noſe is commonly about four feet. He is a fiſh of prey, as we have juſt now hinted, and ſwims very ſwiftly, inſomuch that we are told he keeps pace with the flying-fiſh, and often catches them juſt as they drop into the water, after they have taken a long flight to eſcape his jaws. In order to catch the dolphin, Mr. Smith ſays they faſten the feather-ends of two gooſe-quills to a hook, one on each ſide; and this, being tied to a line, not much thicker than whip-cord, is drawn after the ſhip's ſtern when the wind does not blow too freſh, making a ſmall rippling on the ſurface of the ſea, like a flying-fiſh juſt riſing out of the water, which deceives the dolphin, who ſeizes the hook and feathers, and is taken*.

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* Mr. Moore agrees with Mr. Smith as to the ſtraightneſs of the dolphin and likewiſe tells us they caught ſeveral of them by making an artificial flying-fiſh, and ſkipping it to and fro very faſt on the ſurface of the water, at the ſtern of the veſſel.

The colours of the dolphin are extremely beautiful, his head being of the moſt lively azure blue, as is likewiſe his body from the back fin to the middle of each ſide, with ſome intermixture of green, and ſtrewed with bright ſpots of gold, ſcarlet, &c. From hence quite down to his belly his ſkin is the colour of the faireſt beaten gold, but (in our author's opinion) far ſurpaſſing it in beauty, and a ſight worthy the attention of the greateſt monarch. About three minutes after he is taken out of the water, his glorious colours grow faint and fading, and then preſently return and vaniſh again as quick as thought itſelf. In ſhort, ſays Mr. Smith, in five or ſix minutes time this gay ſurpriſing object fills a traveller's mind with more lofty notions of the great Creator's wiſdom and magnificence beſtowed upon the inferior part of the animal world, than ever it was capable of entertaining before. A mackarel juſt taken out of the ſea is the moſt beautiful of Engliſh fiſhes, in our author's judgment; but alas! (ſays he) it's colours are infinitely ſhort of thoſe of the dolphin.

There is a ſtellar-fiſh of a very ſtrange and ſingular form, of which Mr. Winthrop has given ſome account in the Philoſophical Tranſactions, and which highly merits the attention of the curious. This fiſh ſpreads itſelf from a pentagonal root into five branches, each of which is divided into two; and theſe ten branches are ſubdivided into twenty, theſe again into forty, and ſo the ſubdiviſion continues till the little ramifications amount to 81,920; beyond which our author could not certainly trace the expanſion, though poſſibly each of theſe ſmall threads might, if examined whilſt the fiſh was living, have been found to be farther ſubdivided. It's body reſembles an echinus or egg-fiſh, the main branches a ſtar*, and the diviſions of the branches, the plant miſletoe.— The fiſherman who brought this fiſh to Mr. Winthrop told him, that he never ſaw or heard of any of the ſpecies, except ſix or ſeven he himſelf had taken at ſeveral times on the coaſt of New England, when he was fiſhing for cod. When firſt taken out of the water, it gathered itſelf round like a wicker-baſket; and having faſtened upon the bait on the hook, ſurrounding it with it's arms, it would not quit it's hold, though drawn into the veſſel, till lying a while upon deck it began to feel the want of it's natural element, and then it voluntarily extended itſelf into a flat round form. The only uſe of all this curious ſtructure ſeems to be to make a ſort of purſe-net for the animal to catch other fiſh, or whatever elſe is fit for it's food; and as a ſtore-baſket to keep ſome of it for a future ſupply; or as a receptacle to defend the young ones of the ſame kind from fiſh of prey, if not alſo to feed on them; which appears not improbable, as ſometimes pieces of mackarel are found within the concavity, and ſometimes a ſmall fiſh of it's own ſpecies. Every one of the ſmalleſt parts of the fiſh had motion when it was alive, and a tenacious ſtrength; but, after it was dead and expanded, it could ſcarcely be handled without breaking, though by carefully laying it to dry it was ſomewhat hardened. Mr. Winthrop thinks it may be called a baſket-fiſh, a net-fiſh, or a purſe-net fiſh, till a fitter Engliſh name be found to diſtinguiſh it's ſpecies.

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[*] This fiſh is the ſtella arboreſcens of Rondeletius, firſt deſcribed by him, and ſince by other naturaliſts.

THERE is another kind of ſtar-fiſh which ſtretches out five long arms or claws, making five angles, and ending in ſo many points, reſembling a ſtar as it is uſually painted. This fiſh moves in all directions indifferently, ſometimes creeping, and ſometimes ſwimming. It has ſeveral little trunks of a fleſhy ſubſtance, through which it ſucks it's food out of the mud; and, towards the center of it's body, it has a mouth armed with teeth. As theſe creatures do not enjoy the benefit of ſight, for diſcerning their prey in common with other animals, nature has therefore provided them with more inſtruments for feeling, ſucking, and devouring their food; for, when they have not an opportunity of exerciſing their teeth, they can go to work with their trunks in the mud and among the weeds, and by that means procure a tolerable repaſt. It is not yet diſcovered how the office of digeſtion is performed in the ſtar-fiſh, or how it voids it's excrements, unleſs it be under a ſort of roundiſh ſtone, which is found on it's back, and ſeems faſtened to it with ligaments.

THE echinus, or ſea-urchin, though not peculiar to the ſeas of America, deſerves to be mentioned. There are ſeveral ſpecies of this ſhell-fiſh, but thoſe are moſt properly called ſo which are covered with prickles reſembling thoſe of the land-urchin, or hedge-hog*. The mouth of this fiſh is placed on it's under part, touching the ground; and is armed with five teeth, which meet at their extremities in a point, that they may all work together. The ſtomach and bowels fill the inſide of the ſhell, which has ſeveral little holes in it to give free liberty to the action of theſe ligaments that are to move the prickles, which ſerve the animal for a covering and defenſive armour. The outward extremity of the prickle is ſharp-pointed, but the other end next the ſhell is hollowed like a ſocket, and receives a little tubercle to which it is jointed. Several of theſe tubercles are ſeen on moſt of thoſe ſhells that have no prickles on them; but what is moſt remarkable in ſome ſea-urchins is a ſort of briſtles, which they thruſt out or draw in at pleaſure. They are like ſo many ſmall tubes or reeds, and with theſe they ſuck and ſeparate thoſe juices which are their proper nouriſhment.

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* A ſpecies of ſea-urchin, otherwiſe called a globe-fiſh, has been already taken notice of in Vol. V. p. 282.

But, of all the ſhell-fiſh which either the American or any other ſeas afford, perhaps none are more to be admired than the nautilus or ſailor, which Valliſneri has prettily deſcribed, and after him the ingenious author of Spectacle de la Nature. The turbinated ſhell of this fiſh, which is beautified with ſtrong and lively colours, may properly be called a natural boat, ſince the little animal that inhabits it makes uſe of it in that capacity. In calm weather he mounts up in it to the ſurface of the water, unfurls a membrane to the wind, which ſerves him inſtead of a ſail, and extends two arms, with which, like oars, he rows his little bark along. When he has a mind to dive, he ſtrikes ſail, collects himſelf within his ſhell, and, filling the remaining cavity with water, ſinks to the bottom: for the fiſh, by contracting himſelf, leaves a vacant ſpace in his boat, into which the water finds admittance through a little aperture, and by it's additional gravity cauſes it to ſubſide. On the other hand, when the fiſh has an inclination to aſcend to the top, it is probable he dilates himſelf, and ſo forces the water out of his boat, by which evacuation it becomes ſpecifically lighter than the water, and conſequently riſes to the ſurface. Thus the animal ſteers his courſe without chart or compaſs, ſelf-taught in the art of navigation, and is at once both veſſel and pilot. From whatever quarter the wind blows, it is all one to our little ſailor, who is under no apprehenſion of danger, nor ever deſtitute of rudder or oars, pump or cordage, having within himſelf all the neceſſary utenſils of navigation.

THE ſoldier-crab, or hermit, is a very remarkable kind of ſhell-fiſh, deſcribed by Rondeletius and other naturaliſts as living in a houſe not it's own, and owing it's ſecurity to the labour of another, though nature has provided it with a ſhell, and given it claws to defend and ſubſiſt itſelf, in an honeſt manner. It is the cuſtom, it ſeems, of this fiſh to take poſſeſſion of the firſt ſhell he finds empty, and ſometimes ſeveral of them meet naked, and contend for the ſame habitation, in which caſe, he that has the ſtrongeſt pincers carries the day. Here the conqueror takes up his lodging for ſome time, till, being grown too big for his houſe, he quits it, and ſeeks out for another of a convenient ſize, where he ſtays till he is tired of it, or is grown too bulky, and then he removes again. This is the account that naturaliſts give of this fiſh; but the French author lately mentioned does not think it deſerves the character of a lazy animal that lives by the labour of others, as it is uſually repreſented; for nature (ſays he) knows no ſuch principle as idleneſs, nor ever acts without reaſon or wiſe deſign. The truth is, the body of this fiſh, called by the French the poor man or the hermit, is flabby, and covered with a thin ſhell inſufficient for it's ſecurity; which obliges it to take ſhelter in ſome of thoſe empty ſhells, which are of no uſe

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but to ſuch a tenant. This precaution of the hermit (adds our author) is not unlike that of the little crab, which, being ſenſible of the weakneſs of his own ſhell, begs houſe-room of the muſcle, who, having ſome to ſpare, receives his gueſt, and they live very neighbourly together.—It is ſaid the oil diſtilled from this fiſh is an excellent remedy for the rheumatiſm.

THE cuttle-fiſh, the calamary, and pourcontrel or polypus, ſeem to be different ſpecies of the ſame fiſh, and are found in the ſeas of Europe as well as thoſe of America. The cuttle-fiſh is covered on the back with a white bony or teſtaceous ſubſtance, an inch thick in the middle, but thinner on the ſides; on the upper part hard, ſmooth, and glabrous; on the lower fungous, ſoftiſh, ſomewhat rough and friable. It has two large black eyes incircled with red, and, beſides ſeveral claws, it has two long trunks or horns, which ſerve it in ſwimming, and to let down like a line for it's prey, the hook at the end of each laying hold of the ſmall fiſh on which it feeds.—The calamary is provided with much the ſame inſtruments; and the pourcontrel or polypus has, beſides it's eight claws, an excreſcence that riſes from it's back in the form of a pipe, which he inclines to the right or left to ſteer him as he ſwims along.—But what is moſt obſervable in theſe fiſhes is, that they are all provided with a bag under their throat, full of a liquor as black as ink, which either through fear or natural inſtinct they diſcharge when purſued by other fiſhes, and ſo by troubling the water have an opportunity of making their eſcape.—The bone, the black liquor, and the eggs of the cuttle-fiſh are of uſe in medicine. The bone dries and abſterges, cures ſpots and freckles, is good for the eyes, removes ſwellings in the gums, gives relief in the aſthma, ſtops a gonorrhœa, expels gravel, and promotes urine. The black humour is ſaid to looſen the belly, and the eggs abſterge the kidneys and ureters, and provoke urine and the menſes.

HAVING mentioned a polypus (which word ſignifies many feet) it leads us to take notice of a very curious diſcovery made ſome years ago by M. Tremblay at the Hague; concerning which M. Reaumur read a memorial before the Royal Academy of Sciences at Paris in November 1742. The ſubſtance of it was, that an aquatic inſect called a polypus was found to have this peculiarity in it, that, when cut into ſeveral parts, each of thoſe parts produces, of itſelf, in the ſpace of twenty-four hours, what it wants to compleat the whole; ſo that the part belonging to the head will produce a tail, and on the contrary. Nay, ſome of thoſe inſects have been cut tranſverſly into forty parts, which each produced what was wanting in it to make a perfect inſect; ſo that from one polypus proceeded forty. If they be cut down the middle from head to tail, each half will produce another.—On this occaſion M. Reaumur made ſeveral learned and judicious obſervations, particularly that, as it is an axiom that nature is not ſingular in her productions, there muſt be other inſects endued with the like wonderful property: and he reports, that by experiments he has already diſcovered the ſame in certain earth-worms, but that nature operates in them much more ſlowly*.

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* Mr. Smith has inſerted this account in one of his letters, and mentions a property of the lizard which had fallen under his own obſervation, viz. that, if one of them had half it's tail bit or cut off, it would ſoon grow again to it's uſual length.

THE fiſhes we have been deſcribing are ſuch as are perpetually travelling from place to place, but there are ſeveral others of a quite contrary nature, which remain all their lives attached to one and the ſame ſituation; as the auris marina, or ſea-ear, and the limpets of every ſpecies. It is wonderful indeed how theſe and many other ſhell-fiſh ſubſiſt without ſeeking out for proviſion, unleſs we ſuppoſe their prey comes to them of it's own accord: and perhaps this is the caſe with ſome of them, particularly the ſea-ear, where the little holes along the brims of the ſhell ſeem deſigned as ſo many traps to catch the ſmall worms that are found at the bottom of the ſea in great abundance.

AMONGST this kind of animals the ſea-muſhroom is one of the moſt remarkable, which never quits the place where it has once fixed it's abode. Theſe little creatures are found ſticking on the ſides of rocks, where they look like muſhrooms when they are ſhut and collected within themſelves, and like the anemone when they open and diſplay all their trunks. There is no forcing them to open againſt their will, but upon preſſing them they ſometimes eject young ones of different ſizes, which ſeems to prove that they are viviparous, and both male and female. You may looſen the ſea-muſhroom from it's hold, carry it away, and keep it in water, where it will faſten itſelf again to the firſt convenient place it finds. When it has a mind to open, it raiſes itſelf, and thruſts out two white pellicles like bladders, round which appear a vaſt variety of points or trunks, of different ſizes and colours, which has made ſome naturaliſts call it the ſea anemone. This opening, not unlike the blowing of a flower, has inclined others to look upon it as a real plant, or elſe as partaking both of the animal and vegetable nature: But, as it is certain the little points or ſtuds juſt mentioned are not leaves, but a ſort of ſnouts or trunks deſigned for the ſucking in of nouriſhment, like the fine reeds or prickles of the ſea-urchin or ſtar-fiſh, we cannot deny it a place in the animal kingdom, eſpecially after ſuch a circumſtance as that of three or four young ones iſſuing from the parent upon ſqueezing it, which is confirmed by ſufficient teſtimony.

THIS ſhort account of ſome of the inhabitants of the ocean may ſerve as a ſpecimen of that inexpreſſible wiſdom which appears in the works of the creation, and of the various methods that God has provided for the ſupport of different animals. And we cannot but admire (with the ingenious French writer whom we have chiefly followed on this ſubject) the kindneſs of Providence, in that profuſion of riches which the ſea pours in upon us, every time it riſes and floods our coaſts, viz. thoſe vaſt quantities of lobſters, oyſters, and all ſorts of ſhell-fiſh it brings up along with it; from whence, after having fattened them either with it's own ſubſtance, or ſuch nutritive particles of earth and air as are contained in it, it retires by a gentle decreaſe, giving man acceſs to theſe dainties, and inviting him to come and gather it's favours, which it has ſo liberally ſcattered upon the ſhore, or left upon the rocks.

As the ſame author obſerves, we have juſt reaſon to be charmed with the luſtre and beauty that appears in the coverings of the teſtaceous animals, though apparently they are nothing but a diſcharge of an excrementitious matter from the body that produces them. How delightful is that mixture of red, blue, and green colours that ſtain the ſilver ground of the ſhell of the naker or mother of pearl! but moſt amazing of all is that wiſe deſign and contrivance which appears not only in the ſhell of this fiſh, but even in that of the common oyſter or muſcle. The greateſt part of theſe animals are viviparous, and bring forth their young with the ſhell about them, which covering nature has provided them with for their ſecurity and defence, and has alſo made them to abound with a ſlime or viſcous juice which they emit to the extremities of their ſhells, where it hardens into a ſubſtance of the ſame nature, and by that means enlarges their habitations proportionably to the growth of their bodies*.

Hence

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* Naturaliſts have been generally miſtaken as to the manner of the formation of ſhells. The animal and it's ſhell have been always ſuppoſed to proceed from the ſame egg; but M. Reaumur has ſhewn the ſuppoſition to be falſe, having found by certain experiments, that the ſhells of garden ſnails are formed of a matter which perſpires from their bodies, and hardens and condenſes in the air. All animals are known to perſpire, and are incompaſſed with a ſort of cloud or atmoſphere, which exhales from them, and probably aſſumes nearly their external figure. Snails have nothing peculiar in this reſpect, unleſs that the atmoſphere of their perſpiration hardens about them, and forms a viſible covering, whereof the body is the mould or model, whereas that of other animals is evaporated and loſt in air. This difference ariſes from the difference of the matter perſpired; that of teſtaceous animals, particularly the ſnail, being viſcous and ſtony.—On this principle, though the ſhell ſerves the animal as an univerſal bone, yet it does not grow like a bone, nor like any of the other parts, by vegetation, that is, by a juice circulating within itſelf; but by an external addition of parts laid one over another.—To conſider the thing a little more particularly: It is to be remembered, that the ſnail's head is always at the aperture of the ſhell, and it's tail in the tip or point of the ſhell; and that it's body is naturally turned into a ſpiral form, the different circumvolutions whereof are in different planes. Suppoſe then the ſnail juſt hatched; as the matter it perſpires petrifies round it, there muſt be formed a little cover proportioned to the ſize of it's body; and, as the body is yet too ſmall to make a circumvolution of a ſpiral, at leaſt a whole one, this cover

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Hence come thoſe curve lines that we diſcern in the ſhells of divers fiſhes, one without another, which perhaps ſhew the number of their years, or at leaſt the different ſtages of their growth. There is alſo a ſurpriſing deal of workmanſhip ſhewn in the formation of that hinge which joins the upper and lower ſhells of a muſcle, and in the curious movements of thoſe little muſcular fibres and ligaments with which it is faſtened. When the animal has a mind to ſhut itſelf cloſe up within it's vaulted habitation, it diſcharges a certain liquor into thoſe muſcles, which cauſes them to dilate and ſwell, and conſequently ſhortens their length, ſo that both the ſhells are thereby brought cloſer together. On the other hand, when it is diſpoſed to open it's doors, at the return of a new tide, or the fall of ſome agreeable ſhower, it withdraws that liquor from them, whereby they are relaxed and lengthened. But theſe, our author acknowledges, are only probable conjectures, it being impoſſible for us to determine any thing certain of what is concealed from our obſervation at the bottom of the ſea. However what we do ſee is ſufficient to excite our wonder and aſtoniſhment at the conſtant regularity of nature in providing for the meaneſt creatures, and our

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will only be the center, or at moſt the beginning of a little ſpiral curve. Now as the animal grows, if it ceaſed to perſpire, it is evident all that is added to it's body would remain naked; but, as the perſpiration continues, the cover increaſes in proportion to it's growth. Thus an intire circumvolution of a ſpiral is formed, and ſo a ſecond and a third; and ſtill every new ſpire is bigger than the laſt, in regard the animal grows in thickneſs, at the ſame time it grows in length. When it ceaſes to grow, it does not ceaſe to perſpire; and accordingly the ſhell increaſes in thickneſs, though not in length.

gratitude to the great Author of nature for thoſe innumerable benefits he ſo liberally beſtows upon us.

BUILDINGS and ANTIQUITIES.

As we have heretofore endeavoured to give the reader ſome idea of the grandeur of the Peruvian monarchs before the Spaniards conquered their country, ſo it ſhall be the buſineſs of this article to conſider the preſent and ancient ſtate of the city of Mexico, now an archbiſhop's ſee and the ſeat of a Spaniſh viceroy, and formerly the capital of a great and opulent empire.

THIS famous city ſtands in the lake of it's own name, on the eaſt ſide of a valley, at the foot of a ridge of hills, and is only to be approached by five cauſeys, but has neither gates, walls, nor artillery. It is one of the moſt regularly built cities in the world, the ſtreets being ſtraight and croſſing each other at right angles, and in the narroweſt of them three coaches may go abreaſt. It is almoſt quadrangular, being more than five miles one way, and little leſs than four the other, according to ſome writers; but a Spaniſh author of credit, who lived there long enough to know it, ſays it is not much above ſix miles in compaſs, and that it contains about a hundred thouſand inhabitants, many of them immenſely rich; the moſt valuable commodities of the Eaſt and Weſt Indies, as well as of Europe, being daily expoſed to ſale in their market-place, which is a ſpacious ſquare in the middle of the city. The houſes are built of brick and ſtone, but not very high, the country being ſubject to earthquakes; and, as all the buildings are very convenient, ſo ſome of them are very magnificent, eſpecially the cathedral, which was a work of ſixty years, and is embelliſhed with the fineſt painting, gilding, carving, and other ornaments. This ſtructure, with the cloyſters and dwellings of the clergy adjoining to it, takes up a large ſpace of ground; and the revenues belonging to it are equal to the beauty and magnificence of the buildings. The high altar is ſaid to have coſt fifty thouſand pieces of eight, each piece about four ſhillings and ſixpence Engliſh; and the chalice for the ordinary ſervice eleven thouſand, being of gold enchaſed and ſet round with rubies. There is alſo an image of the virgin Mary, which is of maſſy ſilver, adorned with rubies and pearls, to the value of thirty thouſand pieces of eight, and which is carried in proceſſion once a year, when a certain number of maids draw lots for three hundred pieces of eight for their portions.—Beſides the cathedral there are about thirty other fine churches, twenty-two convents of both ſexes, and ſeveral hoſpitals richly endowed. The revenue of the cathedral is at leaſt ſeventy thouſand pounds per annum, of which the archbiſhop has fifteen thouſand, beſides a great many fines and other perquiſites.

The great ſquare or market-place already mentioned has a piazza on one ſide of it, under which are ſome of the richeſt ſhops in the world; and on the oppoſite ſide ſtands the magnificent palace of the viceroy, which was new-built in the year 1698, and whoſe principal front is not inferior to that of the palace at Naples, which it reſembles, particularly in it's noble ſtair-caſe, leading to a great number of beautiful apartments: and yet the archbiſhop's palace, which is built round like a theatre, is reckoned a more ſtately and elegant ſtructure than that of the viceroy.

NEXT to this great ſquare is a ſtreet called the Plateria, inhabited by goldſmiths and ſilverſmiths, whoſe ſhops are furniſhed with ſuch a variety of utenſils and ornaments of gold, ſilver, and jewels, as perhaps cannot be paralleled in any other city in the world: for here even the Negro women that walk by the ladies coaches wear bracelets of gold, pearl necklaces, and jewels in their ears; and the black foot-boys are dreſſed in rich liveries, adorned with gold and ſilver lace. Here they are continually making either church or family plate, eſpecially when the merchants are beſpeaking goods againſt the arrival of the galleons; at which time the ſhops and warehouſes are filled with cheſts of plate deſigned for Old Spain, piled up to the very cielings. The glaſſes or ſaſhes, like thoſe of our goldſmiths, are full of gilt plate, and their cabinets are filled with vaſt quantities of rings, pearls, large jewels, numberleſs toys, eſpecially gold ſnuff-boxes enamelled and ſet with rubies and emeralds, of which it is ſaid ten thouſand are ſometimes to be ſeen in this ſtreet, and hardly a fleet departs for Old Spain without carrying off at leaſt five hundred.—The ſtreet where the mercers expoſe their ſilks has a very grand appearance; and that where the tradeſmen reſide who deal in braſs, ſteel, and iron ware, is very long and ſpacious: but the ſtreet inhabited by the nobility, gentry, and lawyers, without any ſhops intermixed, exceeds all the reſt for ſtately buildings, the principal whereof is the fine palace of the marquis del Valle, the ſucceſſor of Cortez who conquered Mexico, which ſtands on the ground where the palace of the emperor Montezuma ſtood, and is deſervedly admired for it's ſtructure and dimenſions.

There is in Mexico a pleaſant ring or park, planted with trees, and adorned with fountains and water-works, whither the quality of both ſexes, and the gay part of the town, reſort every evening. Several hundreds of coaches are frequently ſeen here, moſt of them with fine equipages and a great number of pages and other ſervants, of whom the former are generally Negroes. The ladies are ſaid to be great gameſters; but the chief diverſion for people of all ranks is in canoes upon a fine canal, the banks whereof are furniſhed with a vaſt variety of dainties for their accommodation. Others divert themſelves with fiſhing in boats upon the lake, carrying along with them wine and cold proviſions. The neighbourhood of the city is rendered extremely pleaſant by the many villages, monaſteries, palaces, country-ſeats, &c. which either ſtand on iſlands, or on the banks of the lake. Their beſt water is brought to town by an aqueduct from a mountain ſeveral miles diſtant.

Near the beginning of this aqueduct is Chapultepec, the burial-place of the Spaniſh viceroys, as it was formerly of the Mexican emperors. Here is a ſumptuous palace, with fine gardens and water-works, and a beautiful chapel, the ornaments whereof are reckoned to have coſt above a million of crowns.

As to Indian antiquities about Mexico, the Spaniards have deſtroyed the greateſt part of them, but about ſeven leagues from the city there ſtill remain two remarkable pieces, viz. the pyramids of the ſun and moon, the founders of which are not known. They appear cut out in ſteps like thoſe of Egypt; and on the top of them formerly ſtood two images of a monſtrous ſize, repreſenting the ſun and moon, which the Indians worſhipped. The pyramid of the ſun ſtands about two hundred paces from the other, and is about a fourth part higher.

HAVING given a deſcription of modern Mexico, we now come to treat of the ancient city, which, as it ſtood on the ſame ground the preſent city ſtands on, there is reaſon to believe was ſquare, or pretty near that figure; and it's dimenſions may be gueſſed at from the number of families reſiding in it, which the hiſtories of that conqueſt make to be about ſixty thouſand. As at preſent, there was a vaſt ſquare in the middle of the city, which, at the time of their great fair, was reſorted to by at leaſt a hundred thouſand people, and contained a great number of booths and tents wherein they lodged their merchandiſe. The city was divided into two parts; the one inhabited by the court, the nobility, and perſons of diſtinction; the other by tradeſmen and people of inferior rank. The former part was much the largeſt, where the ſtreets were ſpacious, the houſes of white hewn ſtone, one ſtory high, and they had flat roofs, adorned with battlements. Their cielings were of cedar, cypreſs, or other odoriferous wood; and their hangings either of furs and beautiful feathers, or cotton linen, painted with a variety of figures of plants and animals: but, notwithſtanding their wealth, none of the nobility were ſerved in plate, which was the prerogative only of the emperor.

THE palace of Montezuma, the laſt emperor, was ſo very large, that it had thirty gates, which opened into as many different ſtreets, the principal front making one ſide of the great ſquare abovementioned. The materials of this building were poliſhed jaſper, black, red, and white; and over each gate were the arms of Montezuma, being a griffin with the wings extended, and a tyger in his talons. The whole conſiſted of ſeveral ſquare courts, and was ſo vaſtly extenſive as to contain apartments for three thouſand of the emperor's women, and a proportionable number of other domeſtics. —Another palace aſſigned to Cortez and his army was likewiſe of a ſurpriſing extent, containing commodious rooms and apartments for his five hundred Spaniards, and ſix thouſand Indians his auxiliaries; and, when the Spaniſh general had planted his artillery, and placed his guards, it had much the appearance of a fortreſs, being ſurrounded with a thick ſtone wall, and flanked with towers.

WHEN Cortez and his army firſt entered the ſtreets of Mexico, they were met by two hundred noblemen of the emperor's houſhold, cloathed in one livery, with large plumes of feathers on their heads, all of the ſame faſhion and colour. Theſe, after meeting and paying their compliments to the Spaniſh general, fell back, and then dividing themſelves made a lane for the Spaniards. Then came another body of the nobility of a ſuperior dignity, who made a more ſplendid appearance; and in the midſt of them was the emperor Montezuma, carried in a chair of beaten gold, on the ſhoulders of his favourite courtiers, whilſt four of them ſuſtained a canopy over his head. The whole was adorned with beautiful feathers, through which the glittering gold appeared; and the emperor was preceded by three officers with rods of gold, the harbingers of his approach, on whoſe appearance the people fell upon their faces, not daring to look upon their monarch. Cortez diſmounting when the Mexican emperor drew near, the latter alighted from his chair, and carpets were ſpread in the ſtreets for him to tread on. He advanced, it is ſaid, with a ſolemn ſlow pace, leaning on the arms of two princes his relations, and was met by Cortez with a becoming haſte and a moſt profound reverence; which the emperor anſwered by touching the ground with his hand, and afterwards raiſing it to his lips; which was looked upon as a great condeſcenſion, and added to the eſteem and veneration his ſubjects already had for the Spaniards. The conference between the Mexican emperor and Cortez was ſhort at this interview, after which Montezuma commanded one of his princes to conduct the general to the palace appointed for his reſidence, and then returned to his own. The ſpacious apartments of this palace have been taken notice of above.

BESIDES the two palaces already mentioned, Montezuma had ſeveral pleaſure-houſes in and about the city; in one of which were great galleries, ſupported by pillars of jaſper, and in them were kept all ſorts of land-fowl and birds that Mexico produced. The ſea-fowl were preſerved in reſervoirs of ſalt water; and thoſe that were bred up in lakes and rivers, in others of freſh water. And ſo numerous were theſe fowl, that it is ſaid to have been the buſineſs of three hundred men to look after them. In another ſquare of the palace were kept all manner of wild beaſts in their reſpective dens or cages, in a moſt regular order. In another ſquare of the ſame palace were apartments for dwarfs and monſters, fools and naturals, of the human ſpecies, kept for the diverſion or ſervice of the court. Here were alſo armouries, well repleniſhed with all ſorts of Indian weapons; and the artificers that formed and cleaned theſe arms, had apartments in the ſame quarter.

ALL theſe palaces of the Mexican emperors had ſpacious and elegant gardens, laid out in fine ſhady walks, beds of fragrant and medicinal herbs, and parterres of beautiful flowers, and magnificent ſummer-houſes, bagnio's, arbours, and fountains.

But there was a building in the moſt ſolitary part of the gardens, which ſurprized the Spaniards more than any thing they met with, and it was called the Houſe of Sorrow, becauſe the emperor uſed to retire thither on the death of his relations, or on any calamity, public or private. The roof, the cieling, and the ſides were black, and only juſt ſo much light was admitted as to diſcover the diſmal obſcurity. In this gloomy manſion, the Spaniſh authors, pretend Montezuma uſed to converſe familiarly with the prince of darkneſs.

THE principal of the Mexican temples was dedicated to Viztlipuzli, the god of war. The whole edifice formed a large ſquare, and was incompaſſed by a wall of hewn ſtone, and adorned on the outſide with knots of twiſted ſerpents. At a little diſtance from the chief gate was a place of worſhip, built of ſtone, having an aſcent of thirty ſteps, which led to a long flat roof, and the front of it (as the Spaniards relate) was decorated with the ſkulls of men who had been ſacrificed to their idols. On each ſide of the ſquare was a magnificent gate, and over every one of them four ſtatues, ſuppoſed to repreſent ſome ſubordinate deities. At the foot of the wall within were the apartments of the prieſts, and of their inferior officers and ſervants; and yet there was room enough left for eight or ten thouſand perſons to dance on their ſolemn feſtivals. In the middle of the ſquare was a ſtructure of a pyramidical form, three ſides whereof were ſmooth, and the fourth aſcended by a hundred and twenty ſteps. There was a flat on the top, forty feet ſquare, laid with jaſper of different colours. This flat was ſurrounded with twiſted rails, and on each ſide was a marble ſtatue, ſupporting a vaſt candleſtick, between which was a green ſtone, five ſpans high from the ground, which terminated in a point; and on this, it is ſaid, they extended the human victims they ſacrificed, throwing them on their backs, and ripping them open with ſharp flints inſtead of knives; after which they tore out their hearts, and offered them to their idols. On the farther ſide, oppoſite to the ſtairs, ſtood a chapel of exquiſite materials and architecture, where an idol was placed above an altar. This image was of human form, and ſet on a throne, ſuſtained by an azure globe, which they called heaven; and from the ſides of it iſſued four rods, whoſe ends reſembled the heads of ſerpents. On the head of the image was a helmet, adorned with plumes of various colours; and it's countenance was ſevere and terrible. In the right-hand it held a twining ſerpent, which ſerved for a ſtaff; and in the left-hand four arrows, which were revered as the gift of Heaven. It likewiſe bore a ſhield, adorned with fine white plumes in form of a croſs.—On the left-hand was another chapel, in which was the image of Tlalock, another of the Mexican deities, almoſt in every reſpect reſembling the former. Theſe two idols were ſo intimately united, in the opinion of the poor Indians, that they aſcribed to them the ſame attributes, and paid them the ſame honours. The walls and altars of theſe chapels were immenſely rich, covered with jewels and precious ſtones, ſet on feathers of various colours. There were eight of theſe temples in Mexico, of the like architecture and equal wealth; beſides two thouſand ſmall ones, dedicated to ſo many different gods, every ſtreet having it's tutelar deity, every diſtreſs or calamity it's particular altar.

On an iſland in the lake, about two leagues from Mexico, was ſituated Iztacpalapa, the two cities having a communication by a ſpacious ſtone cauſey. This town conſiſted of ten thouſand houſes, many of which were built like thoſe of Mexico. The rooms of the Cacique's palace were hung with cotton-linen finely painted; and among the curioſities in his garden he had a ſquare reſervoir, with ſtairs to go down to the bottom, each ſide four hundred paces.—Another city, called Cholula, was for beauty like Valladolid in Spain, containing twenty thouſand ſouls, and having ſuburbs of equal dimenſions.—The city of Tlaſcala was alſo built with ſtone and brick, like the houſes of Mexico; and was ſituated on four eminences, which were united and defended by a ſtone-wall: ſo well were the Mexicans ſkilled in architecture in thoſe days, though now there are not any towns in the country built of brick or ſtone, except thoſe in poſſeſſion of the Spaniards.

Of the People, and particularly the Indians of NORTH AMERICA.

MEXICO, with which we ſhall begin, is inhabited by a mixed people, conſiſting of Spaniards, Negroes, native Indians, Creoles, Meſtizos, and various other mixtures. The whites are either born in Spain, or Creoles: the native Spaniards moſtly enjoy places of honour and profit, and are concerned in trade. Theſe reſemble the Spaniards of Europe, and have the ſame gravity of behaviour, the ſame natural ſagacity, but a ſtill greater ſhare of pride and ſtatelineſs; for they here conſider their being born in Spain as a ſingular honour, and are therefore, in return, looked upon by the Creoles with envy and hatred. The latter, indeed, are deſtitute of that firmneſs and patience which diſtinguiſh the native Spaniards. They are weak, effeminate, and deſtitute of courage; for, living in an enervating heat, and ſpending their time in loitering and inactive pleaſures, they have nothing bold and manly to inable them to make a figure in active life; and few have any taſte for the ſatisfaction of a learned retirement. They are luxurious without elegance, fond of ſhew and parade, temperate in eating and drinking, and imploy themſelves in amours and intrigues. The ladies are ſaid to be little celebrated for their chaſtity or domeſtic virtues, but exert all their genius and abilities in combating the reſtraints that are laid upon them.

ALL the public employments in Mexico are held by native Spaniards; but they hold them only for a limited time, which muſt not exceed three years. Jealouſy and avarice have an influence on all public regulations; and every officer, from the higheſt to the loweſt, is ſaid to have the avidity, which a new and lucrative poſt of ſhort duration inſpires. There are ſome troops kept in Mexico, and a good revenue appropriated for their maintainance, and the ſupport of their fortifications; but the latter are neglected, and the ſoldiers are few, ill cloathed, ill paid, and worſe diſciplined.

THIS is the character given of the Spaniards of Mexico by authors of reputation; but we hope there are many exceptions; and, indeed, it is not unlikely, that the ill behaviour of the majority may have cauſed theſe general reflections upon all.

WITH reſpect to the original Mexicans, they, like the other Americans, are generally tall, well proportioned, active, nimble, and remarkably ſwift of foot. Their complexion is a deep olive; their eyes large, lively, and ſparkling; the face round, and uſually with agreeable features. Some of them wear their hair flowing looſe, others cut ſhort, and others twiſted and plaited on the head. Indeed, ſome nations, within the limits of this vaſt country, differ greatly in their manners and general appearance: a few deem flat noſes the greateſt ornament, and therefore early flatten thoſe of their infants. Many of them disfigure themſelves with paint, repreſenting on their bodies the aukward figures of various birds and beaſts; or, in time of war, paint their faces red, to give them a warlike and bloody appearance; they likewiſe anoint their bodies with oil or fat, to render their joints ſupple and pliant, and prevent their being bit by muſcatoes. The people are, however, in general cloathed, though in a different manner from the Spaniards. They wear pendants, bracelets, and necklaces. The men have a thin plate of gold or ſilver, of an oval figure, and in the form of a creſcent, hanging over their upper lip. The women, inſtead of this plate, wear a ring, which goes through the bridle of the noſe. Theſe they have of various ſizes, but lay aſide the larger ſort at their entertainments; and the ſmaller do not hinder their eating. Their great men wear two gold plates, of the ſhape of a heart, a ſpan long at each ear, faſtened to it by a gold ring, which ſtretches the ear to an immoderate ſize. They likewiſe wear a kind of coronet or bandage of gold or ſilver, about the head, eight or ten inches broad, and indented on the upper ſide; while others hav only a bandage of cane, painted red, and ſtuck round with beautiful feathers ſtanding upright; beſides, moſt of the Indians of both ſexes have ſtrings of ſhells, beads, and other toys, hanging from the neck down to the breaſt. Thoſe Indians who live in the Spaniſh towns wear a ſhort waiſtcoat, wide breeches, and a ſhort cloke, reſembling the Spaniſh dreſs; but their legs are bare, and only a few of them cover their feet with ſandals. The women have a ſhort jacket of linen or cotton, over which flows a looſe robe. But there are ſuch varieties in dreſs, depending upon cuſtom and fancy, that it would be endleſs to enter upon the particulars.

THE Mexicans ſeem to be greatly degenerated, ſince they were conquered by the Spaniards, both in their genius, temper, and manners. They were once ingenious, hoſpitable, civiliſed, and generous, except in the article of human ſacrifices; but now thoſe who live among the Spaniards are ſaid to be ſtupid, cowardly, and treacherous. The buildings, images, paintings, carvings, cotton cloths, manufactured feathers formed into beautiful pictures, and ſeveral other pieces of art, ſhew the genius of the ancient Mexicans; and the loſs of theſe is a proof of the decline of their genius. But to what purpoſe ſhould an Indian labour to improve talents that could only ſerve to render his bondage more irkſome?

THE Indians who have preſerved their freedom in the mountains and ſome other parts of the country, are ſtill a brave, generous, and humane people, unacquainted with the ſordid vices and corrupt manners of the inhabitants of the Spaniſh cities and towns. They ſpend their time in hunting, fiſhing, and field exerciſes; cultivate but little ſoil, ſow and plant what is juſt ſufficient to anſwer the purpoſes of nature, and allow nothing for the gratification of appetites founded on luxury. The buſineſs of planting is performed by the women, after the men have cleared the ground. The females alſo execute all the domeſtic offices; ſpin, weave, and make cotton and linen cloth for their own or their huſbands apparel; and they are repreſented as being obedient and reſpectful to their huſbands, who return a mutual affection.

These free Indians dwell in thatched huts, and obſerve little regularity in their towns; their houſes neither ſtanding contiguous, nor in the leaſt order, but are diſperſed here and there; only they have one common fort or guard-houſe, ſeated on an eminence, where they hold their councils, and to which they reſort on the approach of an enemy. They ſet up ſmall poſts, ſeven or eight feet high, and two or three aſunder, cloſing up the intervals with clay. The roof reſembles that of a barn, covered with palmetto leaves. The building is about twenty-four feet in length, and twelve in breadth: the hearth is in the middle, and they have only a hole over it, to let out the ſmoke: as they have no partitions, the whole houſe forms but one room. Inſtead of beds they uſe hammocks, which are hung from the principal beam; and their only ſeats and tables are blocks of wood. Their other furniture conſiſts of earthen veſſels, with large calabaſhes to hold their liquor; and their arms, as lances, darts, bows, arrows, and quivers, which, with their tools, are hung as ornaments round the room. Their guard-houſe is about a hundred and thirty feet long, and twenty-five broad. The walls are nine or ten feet high, and the ridge of the roof about twenty feet in height, and thatched with palmetto leaves. On the ſides are narrow loop-holes, from whence they can repulſe an enemy with their arrows; and the ground is, for a good ſpace round, cleared of woods and ſhrubs, that an enemy may find no ſhelter from their arrows, or any place of concealment. They are defended by ſtrong doors; but the Spaniards eaſily burn theſe ſtructures, by ſhooting flaming arrows into the palmetto leaves which ſerve for thatch.

THEIR principal food is either Indian corn parched, ground into flour, and made into thin cakes, or fruit, roots, deer, wild hogs, &c. and ſometimes fiſh. They frequently hunt in companies, a week or a fortnight together, every man carrying with him a hatchet, a bow and arrows, and a long knife, with a dog or two, to beat for game. Some women likewiſe go with them, to carry their proviſions of roaſted plantains, parched Indian corn, potatoes, yams, and a few utenſils. They lodge at night wherever they happen to be at ſun-ſet, contriving to be, at that time, near ſome river. They hang their hammocks between the trees, and have ſcarce any other covering but a plantain leaf, and the next morning, at ſun-riſing, begin their hunting. Their game, which chiefly conſiſts of a ſort of ſmall wild hogs, are not ſwift of foot, and uſually go in droves of two or three hundred; but they do not always find them, and ſometimes hunt a whole day without ſucceſs. When the beaſt is wounded or tired with the purſuit, he will ſtand at bay with the dogs, till the maſter comes up and ſhoots him; he then embowels the animal, and carries him to a place where the women are appointed to wait. They cut off it's head, flay, and quarter it; what they intend to preſerve they barbecue, by laying it upon a wooden grate, under which is a fire of wood coals, which is kept up till the meat is well dried; and theſe pieces will keep a long time. When they have much game, the men aſſiſt the women in carrying it home; and, when their ſtock of proviſions is almoſt ſpent, they go out again in ſearch for more.

WHETHER their fleſh be freſh killed or dried, they cut it into ſmall pieces, and, putting them into a kind of pipkin, add green plantains or other fruit, and ſome roots, with a great deal of pepper, ſtewing them ſeven or eight hours together in water, without ſuffering them to boil, which reduces the whole into a kind of pulp; then, pouring it into an earthen diſh or calabaſh, ſet it on a wooden block, and eat, ſitting round it on leſſer blocks, each having a calabaſh of water by his ſide, to cool their fingers while they are eating. They have ſeldom more than one ſet meal in a day, but eat plantains and other fruit, either raw or roaſted, almoſt all day long. They have a great variety of liquors, but their ordinary drink is water, with the flour of Indian corn infuſed in it, and drank off immediately. Their other liquors are made of different fruits, particularly plantains and pine apples; and to their juice, mixed with water, they ſometimes add honey.

Their principal exerciſes, or rather employments, being hunting, ſhooting, and fiſhing, every man brings up his ſon to them, and they are ſaid to be ſo expert, when children, that we are told a boy, of eight or ten years of age, will ſplit a cane ſet up at twenty yards diſtance, with an arrow diſcharged from his bow, and kill a bird flying. But the moſt expert of the Mexicans are the Moſqueto Indians, who live in the province of Honduras. Theſe are tall, well-made, ſtrong, and nimble, long-viſaged, and have a ſtern look, and black lank hair. Theſe inhabit the ſea-ſhore and the banks of rivers, and are ſo expert as to turn aſide any miſſive weapons thrown at them, with a ſmall cane no bigger than a gun-ſtick. Their principal employment is ſtriking fiſh, particularly the manatee and turtle; whence the Engliſh privateers, when they cruiſe on the Mexican coaſt, have uſually one or two of theſe Moſqueto Indians on board, to ſtrike fiſh; and they will take enough to maintain a ſhip's crew of a hundred men. When they ſerve the Engliſh, they learn the uſe of the gun, and ſoon become excellent markſmen; they behave with great bravery in an engagement, and never give back, while ſupported by the party that entertains them.

We ſhall now proceed to the Indians of Florida, who are alſo of an olive complexion, and have robuſt bodies, finely proportioned; but both ſexes have no other cloaths but a deer ſkin faſtened round their waiſt. They ſtain their ſkin with the juice of plants, and have long black hair, which they twiſt and bind upon the head, ſo as to render it very becoming. The women, who are well-ſhaped and handſome, are ſo active as to climb, with ſurpriſing ſwiftneſs, to the tops of the higheſt trees, and ſwim acroſs broad rivers, with their children on their backs. The men make uſe of bows and arrows, which they manage with great dexterity; the ſtrings of their bows are made of the ſinews of ſtags, and their arrows pointed with ſharp ſtones, or the teeth of fiſhes.

Their management, with reſpect to their corn, which is accounted the common ſtock of the public, is worthy of notice. The crop, which is calculated to ſerve only half the year, is collected into granaries appointed for that purpoſe; and afterwards diſtributed to every family, in proportion to the number of perſons it contains. The ſoil is indeed capable of producing much more corn than they are able to conſume, but they chuſe to ſow no more than will ſerve them ſix months, retiring, for the reſt of the year, into the deep receſſes of the foreſts, where they build huts of palm-trees, and live upon roots, wild fowl, and fiſh. They are alſo fond of the fleſh of alligators, the young of which are ſaid to be delicious eating, but have a ſtrong muſky ſmell. They dreſs their meat, in the ſmoke, upon a wooden gridiron, and their common drink is water. With reſpect to their religion, they worſhip the Sun and Moon, and have an extreme averſion to all Chriſtians; which is the leſs to be wondered at, as the horrid cruelties, exerciſed by the Spaniards on the natives of the adjacent iſland of Cuba and other places, could not fail of exciting their abhorrence. The people are, in general, ſatisfied with one wife; but the chiefs are indulged with more, though the children of only one of them ſucceed to the father's dignity.

THE government of the Floridans is in the hands of many chiefs, who are called caſſiques, and are generally at war with each other; but this is far from being carried on in an open manner; on the contrary they uſually make uſe of ſurpriſe or ſtratagem, exerciſing great cruelty upon the men they take priſoners, yet ſparing the women and children, whom they carry off, and ſettle among them. On their obtaining a victory, they, at their return home, aſſemble all their friends, and feaſt three days and nights, ſpending their time in ſinging and dancing.

AMONG the various Indian nations and tribes within the vaſt extent of the country on the back of the Engliſh ſettlements, thoſe, termed the Five Nations, deſerve particular notice, they being dreaded and revered by all the others, for their ſuperior underſtanding, activity, and valour in war, in which, conſtant practice has rendered them expert, they being generally at war with one nation or other, and ſometimes with ſeveral at a time. Their manners, cuſtoms, and modes of dreſs, are, as near as poſſible, adopted by many of the other tribes; and thoſe Indians are generally eſteemed by the other nations the politeſt and beſt bred, who the nearеſt reſemble them. They claim the whole of the country that lies to the ſouth of the river St. Lawrence, as far as the Ohio, and down that river to the Wabach, from the mouth of the Wabach to the bounds of Virginia: on the weſtward they formerly extended to the lakes of Ontario and Erie; and their eaſtern boundaries were the lake Champlain and the Britiſh colonies. When the Engliſh firſt ſettled in America, they were able to raiſe fifteen thouſand fighting men; but are at preſent ſo reduced by the wars they have maintained with the other Indians, and with the French in Canada, that they at preſent amount to no more than between three and four thouſand.

THE Mohocks were once the moſt numerous tribe among them, though they are now the ſmalleſt; they however ſtill preſerve a ſuperiority over the reſt, and are conſulted and appealed to, in great emergencies, by all the others. About a hundred years ago, they deſtroyed the greateſt part of the Hurons, who then lived on the ſouth ſide of the lake Ontario, and the remainder now live, by permiſſion of the Five Nations, at the weſt end of lake Erie. They ſubdued ſeveral other nations, and obliged ſome to change their habitations, while others, as a badge of ſubjection, are not allowed to appear painted at any general meeting or congreſs, where the Five Nations attend. They have been inveterate enemies to the French, from the time of their firſt ſettling in Canada, till it's being conquered by the Engliſh; and are almoſt the only Indians, within many hundred miles, that have been proof againſt their ſollicitations to turn againſt us. They once burnt great part of the city of Montreal, and now maintain a conſtant war with the Cherokees, Chickeſaws, and Creeks, againſt whom many of their young men are annually ſent, and are ſaid to have ſometimes carried their hoſtilities as far ſouth as the iſthmus of Darien.

THEY are far from being deficient in good ſenſe and ingenuity: they have ſtrong imaginations, and their memories are ſo retentive, that, when they have been once at a place, let it be ever ſo diſtant or obſcure, they will readily find it again: even in dark cloudy weather, they direct their courſe with great exactneſs, by obſerving the bark and boughs of trees; the north ſide in Canada being always moſſy, and the boughs on the other ſide the largeſt. They are grave in deportment upon ſerious occaſions; obſervant of thoſe in company; reſpectful to the old; of a temper cool and deliberate; by which they are never in haſte to ſpeak before they have well thought upon the matter, and are ſure the perſon who ſpoke before them has finiſhed all he had to ſay. They have therefore the greateſt contempt for the Europeans, who interrupt each other, and frequently ſpeak all together. Nothing is more edifying than their behaviour in their public councils and aſſemblies. Every man there is heard in his turn, according as his years, his wiſdom, or his ſervices to his country, have ranked him. Not a word, not a whiſper, nor a murmur, is heard from the reſt, while he ſpeaks; no indecent commendations, no ill-timed applauſe. The younger ſort attend for their inſtruction. Here they learn the hiſtory of their nation; here they are inflamed with the ſongs of thoſe who celebrate the warlike actions of their anceſtors; and here they are taught what are the intereſts of their country, and how to purſue them.

THERE is no people amongſt whom the laws of hoſpitality are more ſacred, or executed with more generoſity and good-will. Their houſes, their proviſions, even their young women, are not enough to oblige a gueſt. To thoſe of their own nation they are likewiſe very humane and beneficent. If any one of them ſucceed ill in his hunting, or has his houſe burnt, he feels no other effect of his misfortune, than that it gives him an opportunity of experiencing the benevolence and regard of his fellow-citizens, who for that purpoſe have all things almoſt in common. But to the enemies of his country, or to thoſe who have privately offended him, the American is implacable. He never, indeed, makes uſe of curſes or indecent expreſſions; but conceals his ſentiments, and appears reconciled, till by ſome treachery or ſurpriſe he has an opportunity of executing an horrible revenge. No length of time is ſufficient to allay his reſentment; no diſtance of place great enough to protect the object; he croſſes the ſteepeſt mountains, he pierces the moſt impracticable foreſts, and traverſes the moſt hideous bogs and deſerts for ſeveral hundreds of miles, bearing the inclemency of the ſeaſons, the fatigue of the expedition, the extremes of hunger and thirſt, with patience and chearfulneſs, in hopes of ſurpriſing his enemy, on whom he exerciſes the moſt ſhocking barbarities. To ſuch extremes do the Indians puſh their friendſhip or their enmity; and ſuch, in general indeed is the character of all ſtrong and uncultivated minds. The Indians, however, eſteem nothing ſo unworthy of a man of ſenſe as a peeviſh temper, and a proneneſs to ſudden and raſh anger; which has ſuch an effect, that quarrels ſeldom happen among them, when they are not intoxicated with liquor. Yet they are extremely ſenſible of the pleaſures of friendſhip; for each of them, at a certain age, makes choice of one nearly of the ſame ſtanding in life, to be his moſt intimate and boſom friend; theſe two enter into mutual engagements, by which they oblige themſelves to brave any danger, and run any riſque, to aſſiſt and ſupport each other. This attachment is carried to ſuch a length, as to conquer their fear of death, which they conſider only as a temporary ſeparation; for they are perſuaded that they ſhall meet and be reunited in friendſhip in the other world, where they ſhall need each other's aſſiſtance, as well as here.

ALL the Indian nations appear to have ſome ſenſe of a Deity, and a kind of religion; but this is ſo various, ſo perplexed and confuſed, that it is difficult to give an account of it. Their ideas of the nature and attributes of God are very obſcure, and ſome of them abſurd; but they all acknowledge him to be the creator of the world; but, how it was created, they know not, and have various conjectures about it, ſome imagining that men were firſt rained down from the clouds, and that the animals deſcended with them. They ſeem to have ſome idea that there are ſpirits of a higher and more excellent nature than man, and, ſuppoſing them every-where preſent, they frequently invoke them, and endeavour to act agreeably to their deſires. They likewiſe imagine that there is an evil ſpirit, who they ſay is always inclined to miſchief; and as they are perſuaded that he has great power, he is a principal object of their devotions; for they generally addreſs him moſt heartily, beſeeching him to do them no harm: but, ſuppoſing the other to be propitious, and always inclined to do them good, they intreat him to beſtow bleſſings upon them, and prevent the evil ſpirit from hurting them. In order to procure the protection of the good ſpirit, they imagine it neceſſary to diſtinguiſh themſelves by becoming exact markſmen, expert hunters, and good warriors.

They have great dependence on their dreams, believing that, from the dreams of youth, may be collected the hiſtory of their future life. Hence, when they arrive at a certain age, dreaming is made a kind of religious ceremony, which is thus performed: they beſmear their faces all over with black paint, and faſt for ſeveral days, in which time they expect the propitious ſpirit will appear to them, in ſome form or other, while they ſleep. In favour of ſome conſtitutions, they ſometimes limit the faſt to a ſhorter time than is generally judged neceſſary; however, the propitious ſpirit, being conſtantly the ſubject of the perſon's waking thoughts, becomes alſo the ſubject of his dreams; at leaſt every phantom of their ſleep is regarded as a figure of him, whether it be bird, beaſt, fiſh, tree, or any thing elſe; which is particularly reſpected by them all their lives after. Their prieſts frequently perſuade the people, that they have revelations of future events, and are authoriſed to command them to purſue ſuch and ſuch meaſures; they likewiſe interpret all the people's dreams, and unfold the myſteries of religion. The other world they repreſent as a place abounding with an inexhauſtible plenty of every thing deſirable, where they ſhall enjoy the full gratification of all their ſenſes. This is, doubtleſs, the motive that induces the Indians to meet death with the utmoſt indifference and compoſure; none of them being in the leaſt diſmayed at the news that they have but a few hours or minutes to live. Thus a father calmly leaves his dying advice to his children, and takes a formal leave of all his friends.

Polygamy is practiſed by ſome nations, but in moſt they are contented with one wife; and it is ſaid that no nation of the North-American Indians is without a regular marriage, in which are many ceremonies, the principal of which is ſaid to be the bride's preſenting the bridegroom a plate of corn. Though the women are incontinent before wedlock, theyare remarkably chaſte after marriage. The puniſhment both of the adulterer and the adultereſs is in the hands of the huſband himſelf, and is often ſevere, from it's being inflicted by one who is both the injured party and the judge. Their marriages are not very fruitful, they ſeldom producing above three or four children, which are brought forth with much leſs pain than the European women ſuffer upon the like occaſion, and are immediately followed with little diminution of their uſual ſtrength. The mothers are ſo fond of their children, that they ſeldom wean them till they are upwards of two years old, and carry them on their backs, till the burthen becomes quite inſupportable. As ſoon as they can walk, they go when and where they pleaſe; but their parents carefully inſtruct them very early in the uſe of arms, and frequently relate to them the great atchievements of their anceſtors, in order to inſpire them with bravery. They introduce them very early into the public councils, and make them acquainted with the moſt important affairs and tranſactions: this accuſtoms them to ſecreſy, gives them a compoſed and manly air, inſpires them with emulation, and makes them bold and enterpriſing. They ſeldom chaſtiſe their children, for, when they are young, they ſay they are not ſufficiently endowed with reaſon; for, if they were, they would not do wrong: when they are more advanced in life, they do not then chaſtiſe them, becauſe, being capable of judging, they ought to be maſters of their own actions, and not to be accountable to any one. In the ſame manner, they excuſe any ill treatment they receive from a perſon in liquor: Should we blame or puniſh him, ſay they, when, being void of reaſon, he knows not what he does?

The men are remarkable for their indolence, on which they ſeem to pride themſelves, pretending that labour would degrade them, it belonging ſolely to the women, while they are formed only for war, hunting, and fiſhing. They, however, make their arms and fiſhing-lines, form their canoes, and build and repair their houſes; though they frequently oblige the women to aſſiſt them, even in thoſe employments, beſides their attending all domeſtic affairs

Liberty, in it's fulleſt extent, is their darling privilege, it being the great and fundamental principle of their policy, that every man is equally free and independent, and that nothing can be a compenſation for the loſs of liberty. Avarice is unknown to them, and they are neither prompted by ambition, nor actuated by a love of gold; for the diſtinctions of rich and poor, high and low, do not ſo far take place among them, as to create the leaſt uneaſineſs, or excite the reſentment of any individual; hence the brave and deſerving, in whatever circumſtances, are ſure to be eſteemed. Their feaſts, whether at a triumph, a viſit, or a funeral, are very ſimple. The Indian, inſtead of endeavouring to make a ſplendid appearance, gives his friends a hearty welcome, and does not value ſpending the fruit of a whole ſeaſon's labour, to convince them that he is ſo. The gueſt is ſure to be treated kindly, and that he ſhall not be the ſubject of ridicule, while preſent; nor of cruel remarks, when abſent. On theſe occaſions, a ſervile regard is never paid to the diſtinctions of rich and poor, ſo as to leſſen the ſpirit and pleaſure of converſation, when the company happens to be formed of a mixture of both. When any buſineſs of conſequence is tranſacted, they appoint a feaſt upon the occaſion, of which almoſt the whole nation partakes: but upon matters of leſs general concern, are leſſer feaſts, to which none are invited, but thoſe engaged in that particular buſineſs. Before the entertainment is ready, the principal perſon begins a ſong, on the remarkable events of their hiſtory, and whatever may tend to their honour or inſtruction. The others ſing in their turn. They have alſo dances, chiefly of a martial kind; and no buſineſs or ſolemnity is carried on, without ſongs and dances.

THE general in chief, who may be conſidered as their king, is uſually choſen by the elders or heads of tribes; and his election is alſo attended with ſinging and dancing; but he is rather reverenced as a father than feared as a monarch; for he has no guards, no officers of juſtice, and no priſons. The other forms of government may be conſidered as a kind of ariſtocracies, in which no other qualification is abſolutely neceſſary for their chiefs, but age, with experience and ability in their affairs. However, there are generally in every tribe, ſome particular families, from whence they chuſe their chiefs, unleſs they ſhew themſelves unworthy of that rank; indeed, there are ſome of the tribes themſelves, who, on account their number or bravery, have a pre-eminence over the reſt, which, not being exacted with pride, is never diſputed, where due.

THE great council is compoſed of the heads of families, and ſuch whoſe capacity has raiſed them to the ſame degree of conſideration. Theſe meet in a houſe built in each of their towns, where they receive ambaſſadors, deliver them an anſwer, ſing their traditionary war ſongs, and commemorate the dead. Here they likewiſe propoſe all ſuch affairs as relate to the ſtate, which have been already digeſted in the ſecret councils, at which none but the head men aſſiſt. The chiefs ſeldom ſpeak much themſelves at theſe general meetings, which are always public; but intruſt their ſentiments with a perſon called their ſpeaker or orator, there being one of this profeſſion in every tribe and town. Their manner of ſpeaking is natural and eaſy, their words ſtrong and expreſſive, their ſtyle bold, figurative, and laconic, nothing being ſaid but what is neceſſary either to inform the judgment, or excite ſuch paſſions as the ſubject naturally requires.

THE ſame council has likewiſe the charge of the peace and order of the community. Their ſuits are few, and ſoon decided; for they have neither property nor art ſufficient to render them perplexed and tedious. When criminal affairs are ſo flagrant as to become a national concern, they are brought before the ſame juriſdiction: but, in ordinary caſes, the crime is either revenged or compromiſed by the parties concerned. If a murder be committed, the family that has loſt a relation prepares to kill the murderer, which is no ſooner done, than the kindred of the laſt perſon ſlain think themſelves as much injured, and as juſtifiable in taking revenge, as if the violence had not begun among themſelves. But things are in general determined in a more amicable manner: the offender abſents himſelf, and his friends ſend a compliment of condolence to thoſe of the party murdered, offering them preſents, which are ſeldom refuſed. Upon this occaſion, the head of the family delivers the preſents in a formal ſpeech, one by one, ſometimes to the number of ſixty articles; ſaying, By this I remove the hatchet from the wound. By this I dry up the flowing blood. And thus in a figurative manner they take away, one by one, all the circumſtances and conſequences of the murder. If the murder be committed by one of the ſame cabbin, that cabbin has the full right of judgment within itſelf, without appeal, either to put to death the guilty perſon, to pardon him, or to force him to give ſome recompence to the wife or children of the ſlain. Mean while the ſupreme authority of the nation looks on unconcerned.

As theſe people are of a vindictive diſpoſition, they frequently take up arms on very trifling provocations. Their private quarrels are frequently decided this way, and expeditions undertaken without the knowledge or conſent of a general council. Theſe private expeditions are not only winked at, but excuſed as a means of keeping their young men in action, and inuring them to warlike exerciſes. But, when war becomes a national affair, it is entered upon with great deliberation. An aſſembly of the ſachems and chief warriors is firſt called to deliberate upon the affair. In this general congreſs among the northern Indians and the Five Nations, the women have a voice as well as the men. When they are aſſembled, the chief ſachem or preſident, taking up the tomahawk, which lies by him, ſays, "Who among you will "go and fight againſt ſuch a nation? Who among "you will bring captives from thence, to ſupply "the place of our deceaſed friends, that our "wrongs may be revenged, and our name and "honour be maintained as long as the rivers flow, "graſs grows, or the ſun and moon ſhall endure?" Then one of the principal warriors riſing harangues the whole aſſembly, and, at length addreſſing himſelf to the young men, aſks who among them will go with him to fight their enemies? On which they generally riſe, one after another, and fall in behind him, while he walks round the circle, till he is joined by a ſufficient number. On theſe occaſions, they have uſually a deer, or ſome other beaſt, roaſted whole; and, after the entertainment, the dance begins, and the war ſong is ſung, it having a relation to their intended expedition and conqueſt, or to their courage, their dexterity in fighting, and the manner in which they will vanquiſh their enemies, uttered in ſtrong and pathetic expreſſions, with a tone that inſpires terror.

THEIR women have ſuch influence in theſe conſultations, that the iſſue depends much upon them: for, if any one of them, in conjunction with the chiefs, is diſpoſed to excite one who does not immediately depend upon them to join in the war, ſhe preſents him, by the hands of ſome truſty young warrior, a ſtring of wampum, which ſeldom fails of producing the effect: but, when they ſollicit an offenſive or defenſive alliance with a whole nation, they ſend an embaſſy with a large belt of wampum and a bloody hatchet, inviting them to come and drink the blood of their enemies.

BEFORE their acquaintance with the Europeans, the wampum, uſed upon theſe and other occaſions, was formed only of ſmall ſhells picked up on the ſea-coaſts, and the banks of the lakes. But it now conſiſts of cylindrical beads, made of white and black ſhells, which are eſteemed, among them, as much as ſilver and gold among us. The black they think the moſt valuable, but both of them are their greateſt riches and ornaments. They have the art of ſtringing, twiſting, and interweaving them in their belts, collars, blankets, &c. in ten thouſand different forms and figures, ſo as not only to be ornaments for every part of dreſs, but expreſſive of all their important tranſactions. They dye the wampum of various colours, and ſhades; and as they are made ſignificant of almoſt every thing they pleaſe, by theſe their records are kept, and their thoughts communicated to one another, in ſome degree as ours are by writing. Thus the belts that paſs from one nation to another, in all important tranſactions, are carefully preſerved in the cabbins of their chiefs, and ſerve, both as a public treaſure, and a kind of record or hiſtory.

EACH nation or tribe has it's diſtinct enſigns or coats of arms, which generally conſiſt of ſome animal. Thus the Five Nations have the bear, wolf, otter, eagle, and tortoiſe: the tribes are generally diſtinguiſhed by theſe names, and a rude ſketch of thoſe animals are pricked and painted on ſeveral parts of their bodies. When they march through the woods, they generally, at every incampment, cut the figure of their arms on trees, eſpecially when they have had a ſucceſsful campaign, that travellers may know they have been there.

THEIR military appearance is terrible. They cut off all their hair, except a ſpot on the crown of the head, and pluck off the eye-brows. The lock left upon the head is divided into ſeveral parts, each of which is ſtiffened and intermixed with beads and feathers of various ſhapes and colours; the whole twiſted and connected together, till it takes a form ſomewhat reſembling the modern pampadour upon the top of the head; which is painted red down to the eye-brows, and ſprinkled over with white down. The griſtles of their ears are ſlit almoſt round, and hung with ornaments that have generally the figure of ſome bird or beaſt drawn upon them. Their noſes are likewiſe bored and hung with beads, and their faces painted with various colours. On their breaſt, they wear a gorget of braſs, or ſome other metal; and by a ſtring, which hangs down from the neck, is ſuſpended the ſcalping knife. Thus equipped they march forth, ſinging their war ſongs, till they loſe ſight of their village; and are generally followed by the women, who aſſiſt them in carrying their baggage, but generally return before they proceed to an engagement.

THEY have commonly one commander for every ten men, and, if the number amounts to a hundred, a general is appointed, not ſtrictly to command, but to give his opinion. They have no ſtated rules of diſcipline, or fixed methods of carrying on a war; but make their attacks in as many different ways as there are occaſions, but generally in flying parties, equipped for that purpoſe with a thin light dreſs, uſually conſiſting of nothing more than a ſhirt.

THE weapons, in uſe among thoſe who trade with the Engliſh, are commonly a firelock, hatchet, and ſcalping knife; but the others uſe tomahawks, bows, and pikes.

THE tomahawk is an ancient weapon uſed by them in war, before they knew the uſe of iron and ſteel; ſince which hatchets have been ſubſtituted in their room; but it ſtill retains it's uſe and importance, and, like the calmut or pipe of peace, which we ſhall hereafter deſcribe, is frequently very ſignificant. This inſtrument has a long handle, and towards the other end is a round knob of ſolid wood, calculated to knock a man down; on the ſide is a point bending a little towards the handle, and from the knob projects another point of a conſiderable length, to thruſt with like a ſpear. The tomahawk is ornamented with paintings and figures, diſpoſed in many ſignificant forms, according to the end for which it is uſed; and on it is kept a kind of journal of their marches and moſt important occurrences, in a ſort of hieroglyphics. When the council is aſſembled to deliberate on war, the tomahawk is coloured red, and, when the council is over, this, or ſome other of the ſame kind, is ſent to every tribe concerned, together with a belt of wampum. The perſon, having delivered his meſſage, throws the tomahawk on the ground, and, if they chuſe to join them, the tomahawk is taken up by one of the moſt expert warriors; if not, it is returned with a belt of their wampum, ſuited to the occaſion.

BUT to return: every morning the commander harangues his detachment, giving his advice for the conduct of affairs during the day. If on any occaſion he would detach a party, he propoſes the affair and gives his opinion how, and by what number, it ſhould be performed; and it ſeldom happens that he is oppoſed in any of his meaſures; for the qualifications, neceſſary to recommend a perſon to the chief command, are his being fortunate, brave, and diſintereſted; and they chearfully obey one whom they believe poſſeſſed of all theſe qualifications.

THE Indians, on returning from a ſucceſsful campaign, manage their march ſo as to approach their village towards the evening, and then ſend two or three to acquaint their chief and the whole village with the moſt material circumſtances of the campaign. The next morning, as ſoon as it is light, they give their priſoners new cloaths, adorn their heads with feathers, paint their faces with various colours, and put into their hands a white ſtaff, taſſelled round with the tails of deer. The war captain then giving as many yells, as he has taken ſcalps and priſoners, the whole village aſſemble at the water-ſide. As ſoon as the warriors appear, four or five young men get into a canoe, if they come by water, or otherwiſe march by land. The two firſt, carrying each a calmut, go ſinging to ſearch the priſoners, whom they lead in triumph to the cabbin, where they are to receive their doom. The owner of this cabbin has the power of determining their fate, though it is frequently left to ſome woman, who has loſt her huſband, ſon, or brother, in the war; and when this is the caſe, ſhe uſually adopts him in the place of the deceaſed. The priſoner has victuals immediately given him, and, while he is at this repaſt, a conſultation is held; and, if it be reſolved to ſave his life, two young men untie him, and taking him by the hands, lead him to the cabbin of the perſon into whoſe family he is to be adopted, where he is received with all imaginable marks of kindneſs. He is treated as a friend, as a huſband, or as a brother; and they ſoon love him with the ſame tenderneſs as if he ſtood in one of thoſe relations to them. But alas! if the ſentence be death, theſe people, who, in other reſpects, behave with the utmoſt humanity, ſhew that they are truly ſavages; for ſentence is no ſooner paſſed, than the whole village ſet up the death cry; and the execution of him, whom they had heſitated, whether he ſhould not have a tender relation to them, is no longer deferred than they can make the moſt neceſſary preparations for treating him with the moſt infernal cruelty. They firſt ſtrip him, and, fixing two poſts in the ground, faſten two pieces of wood from one to the other; one about two feet from the ground, and the other about five or ſix feet higher: then obliging the unhappy victim to ſtand upon the lower croſs-piece, they tie his legs to it, a little aſunder: his hands are extended and tied to the angles formed by the upper piece. In this poſture they burn him all over the body, ſometimes firſt daubing him with pitch. The whole village, men, women, and children, aſſemble around him, every one torturing him in what manner they pleaſe, each ſtriving to exceed the other in cruelty; but, if none of them are inclined to lengthen out his torments, he is either ſhot to death, or incloſed with dry bark, to which they ſet fire. They then leave him on the frame, and in the evening run from cabbin to cabbin, ſuperſtitiouſly ſtriking, with ſmall twigs, the walls, furniture, and roofs, to prevent his ſpirit remaining there, to revenge their cruelties. The remainder of the day, and the night following, are ſpent in rejoicing.

THIS is the moſt uſual method of murdering their priſoners; but ſometimes they faſten them to a ſingle ſtake, and make a fire round them; at others they ſcald them to death, and at others cruelly mangle their limbs, tear their fleſh, and cut off their fingers and toes, joint by joint. What appears moſt extraordinary, is, that, if the ſufferer be an Indian, there ſeems, during the whole time of his execution, a conteſt which ſhall exceed, they in inflicting the moſt horrid pains, or he in deſpiſing them: not a groan, not a ſigh, not a ſingle diſtortion of countenance eſcapes him, in the midſt of his torments. It is even ſaid, that he recounts his own exploits, tells them the cruelties he has inflicted upon their countrymen, and threatens them with the revenge that will attend his death; that he even reproaches them for their ignorance in the art of tormenting; points out methods of more exquiſite torture, and more ſenſible parts of his body to be afflicted. But perhaps theſe inſtances of intrepidity are ſomewhat exaggerated. However, they frequently kill their priſoners on the ſpot, where they have taken them, or in their way home, if they have any fear of their eſcape, or find it inconvenient to carry them farther. Theſe inſtances, ſays the author of the New Syſtem of Geography, ſhew the inconſiſtencies, to which human nature is liable, and the benefit theſe people would receive from believing the Divine revelation, which breathes an uniform humanity, and the forgiveneſs of our enemies; for, had they thoſe diſpoſitions, and were they taught to treat their enemies in the manner our holy religion inſpires, how conſiſtent, how amiable, would be their character.

THE ſcalps are conſidered as the trophies of their bravery, and theſe they hang up in their houſes, they being eſteemed according to their number. They have ſolemn days appointed, when the young men gain a new name or title of honour from their chiefs; and theſe titles are given according to the qualities of the perſon, and his performances, of which theſe ſcalps are the evidence. This is all the reward they receive for the dangers and fatigues of war; and this they think abundantly ſufficient.

WE ought not to conclude our account of their government and manners, without deſcribing the calmut, or pipe of peace, which is held in the utmoſt reverence. The bowl is made of a kind of ſoft red ſtone, hollowed out; and the ſtem is of cane, or a light wood, painted with different colours, and adorned with the heads, tails, and feathers of the moſt beautiful birds. It is uſed to ſmoke either tobacco, or ſome other herb inſtead of it, when they enter into an alliance, or any ſolemn engagement; this being eſteemed the moſt ſacred oath that can be taken, the violation of which is thought to be moſt infamous, and deſerving ſevere puniſhment in the other world. When they treat of war, the whole pipe, with all it's ornaments, is red; ſometimes it is red only on one ſide, and by the diſpoſition of the feathers, &c. one acquainted with their cuſtoms, knows, at firſt ſight, the intentions or deſires of the nation who preſent it. In all treaties, ſmoking the calmut is conſidered as a ſacred oath, as the ſeal of their decrees, and a pledge of their performance of them.

TRADE, MANUFACTURES, &c.

THOUGH we have already mentioned the produce and articles of commerce belonging to each of our colonies in America, we believe we cannot better conclude this chapter, than by a ſummary account of that trade, and a general view of the commerce they carry on, not only among themſelves, and with their neighbours on the continent, but with the European nations, and particularly their mother-country.

THESE colonies, ſays a very ſenſible and judicious author *, are to their mother-country a ſource of wealth and ſtrength ; which is not always the caſe between colonies and their mother-country. Spain, for inſtance, though ſhe has poſſeſſed herſelf of the gold and ſilver mines of Mexico and Peru, is evidently a loſer by the bargain ; for theſe provinces have drained the mother-country of her children, left her plains uncultivated, and her vines unpruned. It is true, ſhe imports a great deal of treaſure from her colonies, but for what purpoſe? Why, to purchaſe for her colonies thoſe neceſſaries and luxuries which ſhe is by no means in a condition to ſupply them with herſelf. For, of forty millions remitted from her colonies, not above two and a quarter can be returned of

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* See a ſmall work intitled An account of the conſtitution and preſent ſtate of Great Britain, together with a view of it's trade, policy, and intereſt. Printed for Mr. Newbery.

the manufactures, or produce of Spain, the reſt being procured from foreign markets; ſo that Spain deals with her colonies for forty millions, and the colonies with the mother-country for only two millions and a quarter. This is ſo much to the diſadvantage of Spain, that they can only be conſidered as a ſort of factor or agent to her colonies, which are every day drawing her ſtrength to them. But if we ſurvey the Britiſh American colonies, and conſider their connexion and intercourſe with their mother country, we ſhall find things amazingly different; here their duties and endeavours are reciprocal, and their trade carried on to mutual advantage. Our colonies export to their mother-country the ſurplus of their produce, which is partly conſumed in Britain, and the reſt ſold from thence to other nations; and the whole aggregate amount is generally remitted from the mother country to her colonies, in goods of her own manufacture; whence it follows, that, as Britain exchanges goods of her own manufacture for the articles of commerce ſhe receives from her colonies, ſo much as they amount to, ſo much is the real gain of the nation; and, on the other hand, as the colonies export to Great Britain only the ſurplus of their own produce for the articles of commerce they receive from thence, and which are in a manner neceſſary to their ſubſiſtance, ſo much as that amounts to, ſo much is the clear gain to their colonies. While trade is carried on in this manner, both parties muſt grow powerful; but, ſhould a mine of gold, ſays our author, be found amongſt them, however deſirable that metal may be, I ſhould dread the conſequence.

To begin with our infant colonies of Eaſt and Weſt Florida, which as they came into our poſſeſſion ſo lately as the concluſion of the laſt peace, little can yet be expected from them: but the latter is finely ſituated for carrying on a very lucrative trade with the Spaniards, and, from the ſpirit with which many gentlemen have begun to cultivate the land, there is little doubt but that an advantageous commerce will ſoon be carried on between them and England.

The colony of Georgia, which began to be ſettled in the year 1733, has not indeed anſwered the expectations of the public; but no branch ſeems ſo likely to ſucceed and bring wealth to that colony, as well as to this nation, as that of ſilk; the ſoil being extremely proper for the culture of the mulberry-tree, and the climate no leſs agreeable to the ſilk-worm. As a proof of this we need only obſerve, that, in the year 1739, M. Augſpourger, a Swiſs, brought over a parcel of raw ſilk from Georgia, and depoſed before a Maſter in Chancery, that he received it from Mr. Thomas Jones, ſtore-keeper to the truſtees for eſtabliſhing that colony, who told him it was the produce of Georgia. This being ſhewn at the truſtees office to one of the greateſt ſilk-weavers in England, and to an eminent raw-ſilk merchant, they declared it was as fine as any Indian ſilk, and worth at leaſt twenty ſhillings a pound. Several other parcels of fine ſilk have been ſince brought from thence; but it's produce in this article has hitherto borne no proportion to the demand for it. There is likewiſe great reaſon to believe, that very good wines might in time be made of the grapes in this colony; and the ſame may be ſaid of ſeveral of the Britiſh ſettlements in America. The coat of the natural grape indeed is not ſtrong enough to contain the juice, ſo that, when it is ripe, it burſts; and the froſt about the vernal equinox often kills the vines, when they are ſhooting: and, as for European vines, many are deſtroyed by the inſects of the country. Experience however has ſhewn, that by grafting the European on the wild vine all theſe inconveniencies are in a good meaſure prevented; for then it ſhoots later, and ſo eſcapes the froſt better; the ſkin of the grape becomes thicker and ſtronger, and the inſects do leſs prejudice. Some vines brought from Portugal and Madeira have thriven very well, even in the moſt barren parts of the province; and, in ſhort, nothing ſeems wanting but a ſufficient number of inhabitants, to render Georgia a profitable and delightful colony.

THE produce of North and South Carolina is much the ſame as that of Georgia would be if properly cultivated, but the quantity of rice exported from thence, as hath been already intimated, is very ſurpriſing. It is ſown in furrows about eighteen inches diſtant, a peck being ſufficient for an acre, which ſeldom yields leſs than thirty buſhels, and ſometimes twice that quantity. They reap it in September and the beginning of October; and the produce is now ſo great, that upon a medium they ſhip off annually about ſixty thouſand barrels, each containing four hundred weight. This trade employs above ten thouſand tons of ſhipping, and returns to Great Britain at leaſt eighty thouſand pounds a year; and, according to the account of a late author, it continues increaſing, ſo that in time all the markets of Europe may probably be ſupplied with rice from that province. It is ſaid that for many years they have alſo exported about ſeventy thouſand deer-ſkins, for which they trade with the Indians, giving them in exchange guns, powder, knives, ſciſſars, looking-glaſſes, beads, and many other trifles; likewiſe ſome coarſe cloths, duffils, callicoes, &c. for the women; which goods they ſometimes ſend five or ſix hundred miles to the weſtward of Charles-Town, though in general this traffick is limited within the compaſs of three or four hundred miles. From this province they alſo export very conſiderable quantities of pitch, tar, turpentine, deal boards, cedar planks, pipe-ſtaves, maſts, yards, and all ſorts of timber; inſomuch that above two hundred ſhips have of late years ſailed annually from Carolina, laden with the produce of the country. The beef and pork of Carolina find a good market in the ſugar iſlands.

THE trade of Virginia, as well as that of Maryland, as we have already obſerved, conſiſts chiefly in tobacco, in which more than two hundred ſail of ſhips are conſtantly employed, which one with another are reckoned to carry at leaſt three hundred hogſheads, in all ſixty thouſand and upwards. But let us ſuppoſe, as ſome do, the quantity exported to England to be ſeventy thouſand hogſheads yearly, each containing four hundred weight of tobacco; and that only one half of this quantity is conſumed in England; then the duty of theſe thirty-five thouſand hogſheads (at 8 l. each) will amount to 280,000l. The other half, which is exported from hence, will not bring above one fifth of that ſum into the exchequer; but, if we allow no more than 50,000 l. for the duty of the thirty-five thouſand hogſheads exported, the whole amount of the cuſtoms on the ſeventy thouſand hogſheads will be 330,000l. and ſo much this commodity certainly brings into the exchequer in time of peace, but in time of war our trade is more uncertain—This branch of commerce is a very beneficial one to England, for, beſides all other advantages, the profit ariſing from the tobacco exported hence to foreign markets has been computed to increaſe the general ſtock of the nation 150,000 l. a year: And then, as our colonies take vaſt quantities of Engliſh manufactures in return for the tobacco and other commodities they ſend us, it is undoubtedly our intereſt to give them all poſſible encouragement and protection.

THE produce of the delightful country of Penſylvania is chiefly wheat and other grain, of which they export great quantities to the reſt of our American colonies, as well as to Europe. They likewiſe export barrelled beef, pork, hams, cheeſe, butter, ſoap, wax, candles, cyder, pipe-ſtaves, maſts, boards, timber, ſeveral ſorts of ſkins and furs, and divers other commodities: and beſides their own produce they frequently ſend us logwood, ſugar, rice, pitch, tar, train-oil, and, in ſhort, whatever they think we want, or they can ſpare. Now to ſhew the advantage ariſing to Great Britain from this province, let us ſuppoſe what it ſeems is a pretty common practice: a Londoner, or any Engliſhman, lays out here in our manufactures to the value of five hundred pounds, theſe will purchaſe in Penſylvania at leaſt ſix thouſand ſix hundred buſhels of wheat, which, ſent to Liſbon, at four ſhillings a buſhel, come to upwards of thirteen hundred pounds; which money is ſure to be ſent home to England at laſt, if not immediately; and is of the ſame advantage for remittance or exchange as any ſuch ſum produced by goods ſent from hence directly. It is alſo uſual for the captain, if the ſhip be plantation-built, to have orders to ſell it at a certain price, if he can get it; which often happens, and in that caſe the whole produce of ſhip and cargo is ſent to England; and, if it be not the property of Engliſhmen reſiding here, it is always ordered to be laid out in goods of the manufacture of this kingdom, or ſuch as are imported

ported hither, and ſent to Penſylvania. In another branch this province is likewiſe of ſingular advantage to England: for all the money they get by trading with the Dutch, French, Spaniards, or others, which is not inconſiderable, is ſent directly hither; inſomuch that it has been computed, that ſixty thouſand pounds in caſh are annually remitted to us from Penſylvania, and returned in the goods and manufactures of this kingdom.—Let us add, that Philadelphia, the capital of Penſylvania, is already become one of the beſt trading towns of the Britiſh empire in America, for which it is excellently ſituated; and in all probability will continue to increaſe in commerce, riches, and buildings, till it will have no equal in that part of the world.

WHAT has been ſaid of Penſylvania, with regard to it's produce and trade, may in a great meaſure be ſaid of New Jerſey, the inhabitants whereof ſell their flour, pork, and other proviſions, particularly great quantities of peaſe, to the merchants of New York, who export them to the ſugar iſlands. This province likewiſe ſends ſome ſkins and furs to England, and train-oil, fiſh, &c. to Portugal, Spain, and the Canaries. In the year 1720, governor Hunter reported that there were no conſiderable manufactures in the country, but that their trade conſiſted chiefly in pitch, tar, and the other articles we have mentioned. However, the increaſe of it's trade and produce may be judged of by that of it's number of hands, eſpecially Negroes, who are ten times as many as they were fifty years ago.

THE inhabitants of New York deal largely with the Indians for the ſkins of elks, deer, bears, beavers, otters, and other furs, moſt of which they ſend to England. They have alſo a conſiderable trade to Barbadoes and the reſt of the ſugar iſlands with horſes, beef, bacon, pork, peaſe, corn, flour, and pipe-ſtaves, for which they receive ſugar, moloſſes, rum, &c. in return. A conſiderable commerce is likewiſe carried on from this province to Madeira and the Azores with pipe-ſtaves and fiſh, for which they load their ſhips back with wine and brandy. But how advantageous the trade of New York is to England appears from what is affirmed, that, as the winters there are pretty ſevere, they take off more of our woollen manufactures than all the iſlands put together, Jamaica excepted, and ſend us more gold and ſilver in return. Upon the whole, it is generally allowed, that there is not a colony in America which makes a better figure than this does, or where the people ſeem to have a greater ſpirit of induſtry.

WE now come to New England, the ſeat of the moſt powerful colony the Engliſh have in America, and which is likewiſe of great advantage to this nation, by taking from us all ſorts of woollen manufactures, linen, ſail-cloth, cordage for rigging their ſhips, haberdaſhery goods, &c. to the value of three or four hundred thouſand pounds per annum. Their remittances were formerly made to us in bullion * or in ſpecie, but now they ſend them by the way of Spain, Portugal, or Italy, where they ſell their fiſh, and the produce of it comes hither in gold and ſilver, or bills of exchange. They likewiſe make us very valuable returns in maſts, perhaps the faireſt and largeſt in the world, beſides caſt-iron, pitch, tar, turpentine, roſin,

plank,

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* This word denotes ſilver or gold in the maſs or lump, not coined or wrought: ſuch are ingots, as we call them, which are melted down in a ſort of mould.

plank, knees for ſhips, and other ſorts of timber for various uſes. Theſe commodities, eſpecially pitch and tar, were formerly purchaſed of the Swedes at an intolerable price; but, ſince the encouragement given to their importation from New England, they have fallen to half their value. This province alſo ſends us log-wood for dying our woollen goods, in quantities more than ſufficient for our own uſe, the ſurplus being ſent to Holland, Hamburgh, and other European markets; and it is chiefly owing to the induſtry of the New England people, that this uſeful commodity, for which we uſed to pay thirty or forty pounds a ton to the Spaniards, is reduced to about twelve pounds, of which four pounds five ſhillings are paid to the crown for cuſtom. We might mention other articles, as whale-bone and oil, which are imported from New England in no inconſiderable quantities, and which we muſt otherwiſe purchaſe of the Dutch with ready money. This colony is likewiſe of vaſt ſervice to our ſugar plantations, which without it's help (and that of ſome other provinces) could not make it cheap enough, nor in ſufficient quantities, to anſwer the markets of Europe; for, if they were obliged to ſow wheat or plant as much Indian corn as they wanted, they muſt needs plant fewer canes. From hence they are alſo ſupplied with horſes for their mills, ſtaves for their caſks, timber, boards, hoops, butter, cheeſe, oil, tallow, apples, onions, flour, beans, peaſe, barrelled pork, ſalt-fiſh and other commodities, of which it is computed that Barbadoes alone takes from New England to the value of 200,000 l. a year. Laſtly, the trade of this colony employing not leſs than ſix hundred ſail of ſhips, it is an excellent nurſery of ſeamen for the royal navy; ſo that in queen Anne's war it is ſaid there was hardly a ſhip in commiſſion without ſome New England ſailors on board, which ſo diſtreſſed it's merchants that they were obliged to man their veſſels with Indians and Negroes.—We ought likewiſe to take notice, that a great many ſhips are built in New England, more than in any other of our colonies, for the merchants of London and Barbadoes; and ſome for mere ſale, which are ſent to England to market. Their ſhips have the reputation of being very well built and ſtrong, but to this ſtrength it is chiefly imputed that they are not always the beſt ſailors. And it is worth obſerving, what a certain writer on trade affirms, that it is in our power to be ſupplied from New England with all the naval ſtores that we now fetch from the Baltic; and that, if this matter were once thoroughly conſidered by parliament, it might produce ſome law that would render this colony ſtill more beneficial to the nation.—As to their manufactures, it appears by proper accounts ſent from thence to England, that they have ſome forges for making bar-iron, ſome furnaces for caſt-iron, and that they make all ſorts of iron-work for ſhipping. They tan a conſiderable quantity of leather, and make hats not only for their own uſe, but for exportation; and a native of that country has lately informed us, that the Iriſh people ſettled there have brought the linen manufacture to ſuch perfection, that at Londonderry in New Hampſhire it has often been ſold for ſix ſhillings ſterling a yard, and commonly from twenty-pence to two ſhillings: But New England is ſtill ſupplied with ſixteen parts in twenty of Britiſh manufactures.

THE trade of Nova Scotia conſiſts in bartering European goods with the Indians for ſkins and furs; from the ſeveral fiſheries erected in different harbours, particularly for cod, ſalmon, and ſturgeon; the inhabitants therefore export great quantities both of fiſh and furs, together with lumber, as joiſts, ſtaves, hoops, &c. and purchaſe, from England, linen and woollen cloths, ſtockings, ſhoes, working tools, kitchen utenſils, all kinds of hardware, and furniture.

CANADA, which was conquered from the French during the late war, was attended with the advantage on it's being ceded to England, of having a hundred thouſand inhabitants, who then became ſubjects to the king of Great Britain, and were conſequently obliged to trade only with this kingdom for all the European goods they want, and to ſell to Britiſh ſubjects the produce of that extenſive country, particularly the immenſe quantities of furs, with which the French were formerly ſupplied, and who are now obliged to purchaſe them of our merchants. They alſo export great quantities of deer, elk, and mooſe ſkins, maſts, yards, lumber, &c.

CHAP. III.

Of the AMERICAN ISLANDS.

THE iſlands which lie about the coaſt of the vaſt continent of America are almoſt innumerable, many of them uninhabited, or in other reſpects too inconſiderable to deſerve particular notice. Even Newfoundland, though a large iſland, is very little known, and affords us nothing curious or entertaining but it's fiſhery hereafter deſcribed. The American iſlands of the greateſt importance are that vaſt number called the Antilles, which lie at the entrance of the gulph of Mexico, extending ſrom the coaſt of Florida to that of New Andaluſia in Terra Firma. Some call them the Caribbees, from the firſt inhabitants; but this is a denomination that moſt geographers confine to the Leeward Iſlands. Cuba, Hiſpaniola, Porto Rico, and Jamaica, are called the Great Antilles; the laſt of which is poſſeſſed by the Engliſh, the three others by the Spaniards. The moſt conſiderable of the Little Antilles are Barbadoes, St. Chriſtopher's, Nevis, Antegoa, Montſerrat, Anguilla, Barbuda, Tobago, Dominica, St. Lucia, St. Vincent, Granada, the Granadillos, poſſeſſed by the Engliſh; Guadaloupe, Martinico, Marigalante, Santa Cruz, St. Bartholomew, by the French; St Euſtatia, Saba, Bonaires, Curaſſow, and Oruba, by the Dutch; and La Trinadad and Margarita by the Spaniards.

BESIDES theſe, there are the iſlands that lie to the ſouth of the ſtreights of Magellan, which are commonly diſtinguiſhed by the name of Terra del Fuego, or the land of Fire; they being thus called from the fires and ſmoke perceived by the firſt diſcoverers of them, riſing from a volcano in the largeſt iſland, the flame of which, though not ſeen in the day-time, is viſible at a vaſt diſtance in the night, and ſometimes throws up great quantities of ſtones and aſhes. Theſe iſlands extend along the coaſt from eaſt to weſt above four hundred miles, and were ſuppoſed to join the continent till Magellan ſailed through the ſtreights that part them from it. They were then thought one continued iſland, till ſeveral navigators found they were divided by narrow channels. Terra del Fuego, the largeſt of theſe iſlands, is rough and mountainous, with the tops of the mountains covered with ſnow; but is ſaid to have fertile vallies, plains, and paſture-grounds, watered by a multitude of fine ſprings that fall from the mountains. The lands are ſaid to abound with wood and ſtone, and to be inhabited by a people as white as the Europeans, who, notwithſtanding the extreme ſeverity of the climate, go almoſt, if not quite, naked, and paint their bodies of ſeveral colours. The ſtreights of Magellan are above a hundred leagues in length, but the breadth is various, it being in ſome places only a league wide, and in others two or more. There are many ſafe harbours running into the continent, with narrow entrances, and bays, that extend quite out of ſight, encompaſſed by high mountains, that ſhelter them on all ſides.

To the eaſt of the iſlands that form this ſtreight, is Staten Land, and between it and Terra del Fuego, runs Streight Le Maire, which is ſeven or eight leagues in length The iſland of Staten Land far ſurpaſſes Terra del Fuego in the wildneſs of it's appearance, it ſeeming to be intirely compoſed of inacceſſible rocks, without any mixture of earth or mould. Theſe terminate in a vaſt number of ragged points riſing to a prodigious height, and all of them covered with everlaſting ſnow. The points themſelves are on every ſide ſurrounded with frightful precipices, and often overhang in a moſt ſurpriſing manner, while the hills which bear them are generally ſeparated from each other by narrow clefts, which appear as if the country had been frequently rent by earthquakes; theſe chaſms being nearly perpendicular, and extending through the ſubſtance of the main rocks, almoſt to their very bottom; nothing can be imagined more ſavage and gloomy, than the whole aſpect of this coaſt.

The SPANISH AMERICAN ISLANDS.

FROM the ſouthern part of America, it ſeems natural for us to paſs to the weſtern ſide, where we ſcarce find any iſland worth notice, except that of Juan Fernandes, of which we ſhall take a ſhort extract from the deſcription given of it in commodore Anſon's voyage. This iſland is of an irregular figure, about fifteen miles long, and ſix broad; but is remarkable for it's beauty. The face of the country, at leaſt of the north part of the iſland, is extremely ſingular: the woods that cover moſt of the ſteepeſt hills, being free from buſhes and underwood, afford an eaſy paſſage through every part of them; and the irregularity of the hills and precipices trace out, by their various combinations, a great number of romantic vallies, moſt of which have a ſtream of the cleareſt water running through them that falls in caſcades from rock to rock, as the bottom of the valley, by the courſe of the neighbouring hills, is broken into a ſudden ſharp deſcent. In theſe vallies, are ſome particular ſpots, where the ſhade and fragrance of the contiguous woods, the loftineſs of the overhanging rocks, and the tranſparency and frequent falls of the neighbouring ſtreams, preſent ſcenes of ſuch elegance and dignity as would with difficulty be rivalled in any other part of the globe; for here the ſimple productions of unaſſiſted nature may be ſaid to excel all the fictitious deſcriptions of the moſt animated imagination. The piece of ground, in which commodore Anſon pitched his tent, was a ſmall lawn, that lay on a little aſcent, at the diſtance of about half a mile from the ſea. In the front of his tent was a large avenue cut through the woods to the ſeaſide, which, ſloping to the water with a gentle deſcent, opened a proſpect of the bay and the ſhips at anchor. This lawn was ſcreened behind by a tall wood of myrtle, ſweeping round it in the form of a theatre; the ſlope on which the wood ſtood; riſing with a much ſharper aſcent than the lawn itſelf, though not ſo much, but that the hills and precipices within land, towered up conſiderably above the tops of the trees, and added to the grandeur of the view. There were beſides two ſtreams of cryſtal water, which ran to the right and left of the tent, within a hundred yards diſtance; and were ſhaded by the trees which cut the lawns on either ſide, and completed the ſymmetry of the whole.

SEVERAL of the hills have a peculiar ſort of red earth, exceeding vermilion in colour. The trees of the woods, on the northern ſide of the iſland, are chiefly aromatics of many different ſorts, but none of them are ſo large as to yield any conſiderable timber, except the myrtle-trees, which are the biggeſt on the iſland; but even theſe will not work to a greater length than forty feet. The top of the myrtle is circular, and appears as uniform as if clipped by art. Here is alſo the pimento-tree, the cabbage-tree, and a great number of plants, adapted to thoſe ſcorbutic diſorders, contracted by ſalt diet and long voyages, and likewiſe many acres of ground covered with oats and clover.

THIS iſland formerly abounded with goats; but their number is greatly diminiſhed, for the Spaniards, being informed of the advantages, which the buccaneers and privateers derived from the goats fleſh, with which they were here furniſhed, endeavoured to deprive their enemies of this relief, by ſetting on ſhore a number of large dogs, who have increaſed ſo faſt, that they have deſtroyed all the goats in the acceſſible part of the country, only a few remaining among the crags and precipices, where the dogs cannot follow them. Theſe are divided into ſeparate herds, which inhabit diſtinct faſtneſſes, and never mingle with each other. Our author mentions an extraordinary diſpute between a herd of theſe animals, and a number of dogs. Some men, going in a boat into the eaſtern bay, perceived the dogs running very eagerly; and, being willing to diſcover what game they were after, they lay upon their oars to view them, and at laſt ſaw them take to a hill, where looking a little farther they obſerved, upon the ridge of it, an herd of goats that ſeemed drawn up for their reception. There was a very narrow paſs ſkirted on each ſide by precipices, on which the maſter of the herd poſted himſelf fronting the enemy, the reſt of the goats being all behind, where the ground was more open. As this ſpot was inacceſſible by any other path, except where this champion had placed himſelf, the dogs, though they ran up the hill with great alacrity, yet, when they came within about twenty yards of him, did not dare to encounter him, as he would infallibly have driven them down the precipice. They therefore deſiſted, and, giving over the chace, quietly laid themſelves down, panting for breath. There are but few birds, and thoſe chiefly hawks, blackbirds, owls, and humming-birds.

Upon this iſland is a great number of ſeals and ſea-lions: the latter has ſome reſemblance to a ſeal, but is much larger, and it's fleſh has ſome reſemblance to that of beef. When full-grown, they are from twelve to twenty feet in length, and from eight to fifteen in circumference; and ſo extremely fat, that, having cut through the ſkin, which is about an inch in thickneſs, there is at leaſt a foot of fat, before you come at either lean or bones. They are alſo very full of blood; for, if they are deeply wounded in a dozen places, there will inſtantly guſh out as many fountains of blood, ſpouting to a conſiderable diſtance. Their ſkins are covered with ſhort hair of a light dun-colour; but their tails and their fins, which on ſhore ſerve them for feet, are almoſt black; theſe fins are divided at the ends like fingers, the web which joins them not reaching to the extremities; and each of theſe fingers is furniſhed with a nail. The head, which is ſmall, in proportion to the reſt of the body, terminates in a ſnout, and they have whiſkers like thoſe of a cat, with ſmall eyes and ears; and the noſtrils, which are alſo very ſmall, are the only parts deſtitute of hair. In each jaw they have a row of large pointed teeth. The males have a large ſnout or trunk hanging down five feet ſix inches below the end of the upper jaw, which the females have not; and this renders it eaſy to diſtinguiſh the ſexes; and beſides the males are much the largeſt. Theſe animals divide their time equally between the ſea and land, continuing at ſea all the ſummer, and coming on ſhore at the ſetting in of winter, where they reſide during that whole ſeaſon. In this interval, they ingender, and bring forth their young, having generally two at a birth, which they ſuckle with their milk, they being at firſt about the ſize of a full-grown ſeal. While the ſea lions continue on ſhore, they feed on the graſs and verdure, that grows near the banks of the freſh water ſtreams; and, when not employed in feeding, ſleep in herds, in the moſt miry places they can find. As they are of a lethargic diſpoſition, and not eaſily awakened, each herd places ſome of the males at a diſtance, which never fail to alarm them, when any one attempts to moleſt, or even to approach them; which they do by making a very loud noiſe, ſometimes grunting like hogs, and at others ſnorting like horſes in full vigour. The males have often furious battles, when they gore each other with their teeth, and cover one another with blood. The author of lord Anſon's voyage takes notice of one whom he ſays they named the baſhaw, he generally lying ſurrounded with a number of females, which no other male dared approach; but had not acquired that envied pre-eminence without many bloody conteſts, as appeared from the numerous ſcars viſible in every part of his body.

THE bay is moſt plentifully ſtored with the greateſt variety of fiſh, particularly cod of a prodigious ſize, which are no leſs numerous than on the banks of Newfoundland; alſo large bream, ſilver-fiſh, cavallies, gropers, maids, a black fiſh much eſteemed, called by ſome the chimney-ſweeper, in ſhape reſembling a carp; excellent cray-fiſh, that generally weigh eight or nine pounds, and are of an exquiſite taſte; beſides congres of a peculiar kind. There are alſo a great number of large ſharks and dog-fiſh.

IT is now time to leave the pleaſant little iſland of Juan Fernandez, and come to ſpeak more particularly of the Antilles, with which we are better acquainted, as many of them are peopled by colonies from our own country, and other European nations. Of theſe iſlands Hiſpaniola and Cuba, being much the largeſt, ſeem to require our firſt attention; though we ſhall not find much in them ſo curious as to detain us long in the deſcription. Hiſpaniola, or St. Domingo, (as it is otherwiſe called) belongs partly to the French, and partly to the Spaniards; and is allowed to be as fruitful and as pleaſant as any in that part of the world, having vaſt foreſts of cabbage-trees, palms, elms, oaks, pines, &c. beſides great variety of fruit-trees, whoſe fruit is more lovely to the eye, and better-taſted, than in many of the neighbouring iſlands; ſuch as grapes, oranges, citrons, apricots, and many others, whoſes names it is needleſs to mention. Here are all the birds common to the Weſt-Indies, the meadows are filled with innumerable herds of cattle, and the French part of the iſland has horſes enough to ſupply all the adjacent colonies. There is ſcarce a country in the world better watered by brooks or navigable rivers, which abound with fiſh, and gold-duſt is found in ſome of their ſands. It is ſaid there are alſo mines of gold and ſilver, which, though formerly wrought, the Spaniards have found themſelves too weak to carry on for their own advantage, and take all poſſible care to conceal them from others. The chief commodities of the iſland are hides, ſugar, indigo, cotton, tobacco, wax, honey, and various kinds of drugs and dyers wood. The French, in particular, ſince their ſettlement here, have very much improved their ſugar-plantations; and they are now reckoned equal, if not ſuperior, to the Spaniards in numbers, though both together, with all their ſlaves, are very far ſhort of what an iſland of ſuch extent and fertility is capable of maintaining.

The ſoil of Cuba, if we except the ridge of mountains that runs through the iſland from eaſt to weſt, is generally very fruitful, and produces all the commodities known in our American iſlands, ſuch as ginger, long-pepper, maſtich, aloes, and various other drugs and ſpices. It's woods conſiſt of large cedars and other odoriferous trees, oaks, pines, palm-trees, cotton-trees, vines, &c. and there are mines of copper, if not of gold, the duſt whereof is found in the ſands of the rivers, as well as in Hiſpaniola. This iſland has many conveniencies belonging to it both for making ſalt and catching fiſh; and it's ſhores abound with ſea-fowl, particularly a ſort of cranes, which are white when young, but when old are of ſeveral colours. It has plenty of horſes, ſheep, wild boars, hogs, and cattle of a larger and better breed than moſt parts of America, which have multiplied to ſuch a prodigious degree, ſince they were firſt brought hither by the Spaniards, that many of them run wild in the woods, and are killed purely for their hides, in which buſineſs the Negroes are employed. Hides therefore make a great branch of the trade of the iſland; and abundance of tobacco, both in leaf and ſnuff, commonly called Havanna from the chief city and port of Cuba, are exported thence to New Spain and the South Sea, beſides what is ſent to Europe. Upon the whole, it is a fine iſland, and it's capital juſt mentioned is perhaps a city of the greateſt ſtrength and importance to the Spaniards of all they poſſeſs in America, being the place of rendezvous for their fleets in their return from that part of the world to Europe, and lying at the mouth of the gulph of Florida, through which they are obliged to paſs; ſo that the Spaniards, not without reaſon, call it the key of the Weſt Indies.

HERE we ought juſt to take notice of Porto Rico, the third of the Great Antilles poſſeſſed by the Spaniards, though much leſs than either of the former. This is likewiſe divided by a chain of mountains from eaſt to weſt, and is tolerably well watered with brooks and rivers. The north part, which is not ſo fertile as the ſouth, has been reported to have mines of quickſilver, tin, lead, and ſome of gold and ſilver; but there are none of the latter wrought at preſent, nor were there ever any conſiderable ones in the iſland, though it's rivers are not without gold-duſt among their ſand and gravel.

It has plenty of good ſhip-timber, and variety of fruit-trees, ſuch as are common to it with the neighbouring iſlands; and, like thoſe, it has great flocks of parrots, wood-pigeons, and other wild and tame fowl, with all manner of European poultry. It's coaſts abound with fiſh, and here are a ſort of land-crabs that burrow in the ground like rabbets, of which we ſhall ſpeak more hereafter. It's principal commodities are ſugar, hides, cotton, and ſeveral ſorts of drugs; alſo ſalt, and oranges and lemons, both as fruit and in ſweetmeats.

BRITISH AMERICAN ISLANDS.

THE next and laſt of the Great Antilles to be deſcribed is Jamaica, a flouriſhing iſland now poſſeſſed by the Engliſh, and which ſhould have been mentioned before Porto Rico, as being larger and more valuable, but that we choſe to ſpeak of the Spaniſh poſſeſſions together. Sir Hans Sloane and Dr. Stubbs will furniſh us with almoſt every thing that is curious relating to Jamaica, which, like the iſlands abovementioned, has a ridge of hills running through it, beſides others ſcattered over the country, that give riſe to abundance of fine rivers ſtored with fiſh of various kinds, but ſcarce any of them navigable except by canoes, wherein ſugars and other goods are carried from the plantations to the ſea-ſide, and from thence in ſchooners and ſloops to Port Royal and Kingſton, there to be ſhipped for England. This is occaſioned either by their falling too precipitately from the mountains, or the ſhortneſs of their courſe: beſides, they often carry with them great ſtones or pieces of timber, and generally much clay or earth, which fouls the water, and gives it a copperiſh taſte, though it proves good enough after ſettling ſome days in earthen jars. In dry years freſh water is very ſcarce at a diſtance from the rivers; and the well water near the ſea, as at Port Royal, is blackiſh and unwholeſome. There are ſome ſprings, as well as rivers, that are remarkable for their petrifying quality; and near point Morant, at the ſouth eaſt corner of the iſland, Sir Hans ſays there is a hot bath in a wood, whoſe water has been tried with great ſucceſs, by drinking as well as bathing in it, for the cure of the belly-ach, the common diſeaſe of the county. In another place there are a great many ſalt ſprings, which being united form what is called the Salt River. Salt is made at Jamaica in ponds, into which the ſea-water comes, and the water being exhaled by the heat of the ſun, the ſalt is left at the bottom. Nor ought we to forget a remarkable lake in this iſland, which receives abundance of water from a river without any viſible outlet.

THE mountains of Jamaica are moſt of them crowned with trees of a thouſand different ſpecies, ever verdant, forming groves and cool retreats, and irregularly mixing their branches in a gay ſort of confuſion; the cedar and other tall trees rearing their lofty heads, and the lignum vitæ, mahogany, and numberleſs others thriving under their friendly ſhade. The valleys too are generally verdant, being refreſhed with ſo many ſtreams; but their greateſt beauty conſiſts in the plantations that adorn them, laid out with the niceſt art, and producing as choice and valuable plants as any in the univerſe, particularly the ſugar-cane*, of whoſe culture, the preparation of ſugar, &c. we ſhall here give an account, which may ſerve likewiſe for Barbadoes, Antegoa, Nevis, and the reſt of our ſugar-iſlands; for not only the commodity, but the manufacture of it, is in all of them much the ſame.

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* It is a queſtion not yet decided among botaniſts, whether the ancients were acquainted with this cane, and whether they

THE reed or cane, which yields us ſuch an agreeable juice, is like thoſe others we ſee in moraſſes and on the edges of lakes, excepting that the ſkin of theſe latter is hard and dry, and their pith void of juice, whereas the ſkin of the ſugar-cane is ſoft, and the ſpungy matter or pith it contains is very juicy, though that in a greater or leſs degree according to the goodneſs of the ſoil, it's expoſure to the ſun, the ſeaſon it is cut in, and it's age; which four circumſtances contribute equally to it's goodneſs and it's bulk. It uſually grows to the heighth of ſix or ſeven feet, ſometimes higher, excluſive of the long, green, tufted leaves at top, from the middle whereof ariſe the flower and the ſeed. The ſtem or ſtalk is divided by knots or joints, from whence likewiſe ſhoot out leaves, but

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they knew how to expreſs it's juice? All that we can gather from the arguments advanced on either ſide is, that, if they knew the cane and the juice, they did not know the art of condenſing, hardening, and whitening it, and conſequently knew nothing of our ſugar. Salmaſius however aſſures us, that the Arabs have uſed the art of making ſugar, ſuch as we now have it, above eight hundred years.—Another queſtion among naturaliſts is, whether ſugar-canes be originally of the Weſt Indies, or whether they have been tranſlated thither from the Eaſt? The learned of the laſt ages have been much divided on this point; but, ſince the diſſertation of father Labat, publiſhed in 1722, there is no longer room to doubt but that the ſugar-cane is as natural to America as India. All that cen be ſaid in favour of the latter is, that the Spaniards and Portugueſe firſt learnt from the Orientals the art of expreſſing it's juice, boiling it, and reducing it into ſugar.

theſe uſually fall as the cane riſes; and it is a ſign either that the cane is not good, or that it is far from it's maturity, when the knots are ſeen beſet with leaves. The cane is yellowiſh when ripe, and about an inch in diameter; and it's juicy pith is then eaten freely, being very nouriſhing and wholeſome if taken with moderation. The tops of the canes are likewiſe very good food for horſes and black cattle*.

THE ground fit for ſugar-canes is that which is light, ſoft, and ſpongy, lying on a deſcent proper to carry off the water, and well expoſed to the ſun. The uſual manner of planting them is by digging long trenches, about ſix inches deep and as many broad, and about two feet diſtant from each other, laying a double row of canes along them from end to end. From every knot of the canes thus laid down in the furrows ſhoots up another cane; and theſe young ones grow to the heighth of eighteen or twenty inches in about twelve weeks time, but do not arrive to maturity till they have been a year or fifteen months in the ground. The next care of the planter is to keep his canes free from weeds, and to obſerve whether any of his roots have failed, that the trenches may be ſupplied in time with others; for, the crop being, by a neglect in either caſe, partly ripe and partly green at the ſame time, they cannot well be ſeparated without more labour than they are worth, and then the planter burns them, as they ſtand. By this means indeed he loſes a crop, but he does not loſe his planting; for, the fire not touching the roots, they ſoon ſhoot out again, the ſoil is much bettered, and ſwarms of rats are deſtroyed, which often do great damage in theſe plantations. The preſent practice is to dung the canes, either when they are planted, or when they come to be two feet high; and this is the planter's greateſt trouble and expence, for, were it not for this dunging, much fewer Negroes would be required.

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* Mr. Smith tells us, that the bottom part of the ſugar-cane top is about the thickneſs of one's finger, and that at Nevis they cut it into pieces about an inch and a half long, to give to their horſes, being a very heartening food, and fattening them apace. They alſo give them the ſkimming of the ſugar-coppers; but that muſt be done ſparingly at firſt, for fear of griping and perhaps killing them.

WHEN the canes are ripe, they are cut up one at a time by a proper inſtrument, being too large to be mowed by a ſcythe; and, as they cut them, they trim them and chop off the tops, which, as above intimated, they reſerve for their cattle. The canes are then bundled up in faggots, and carried to the mills, which are very curious machines, contrived to bruiſe them and expreſs the liquor or juice therein contained. Theſe mills are compoſed of three wooden rollers covered with plates of iron, and are of four kinds, being turned either by ſlaves, water, wind, or cattle. Thoſe turned by the hand were firſt in uſe, but are now laid aſide, as being an intolerable hardſhip to the poor Negroes who were doomed to that work, beſides the ſlowneſs of their progreſs. Windmills are the moſt modern, and are not yet very common, except in Barbadoes and St. Chriſtupher's, and among the Portugueſe. Theſe make good diſpatch, but have this inconvenience, that they are not eaſily ſtopped, which proves ſometimes fatal to the Negroes who feed them.

THE juice coming out of the canes, when preſſed and broken between the rollers, is conveyed by a leaden canal into the ſugar-houſe, which is near the mill, where it falls into a veſſel, and thence runs into a copper or cauldron, to receive it's firſt preparation; only heated by a ſlow fire to make it ſimmer. With the liquor is here mixed a quantity of aſhes and quick-lime; the effect of which mixture, together with the action of the fire, is, that the unctuous parts are ſeparated from the reſt, and raiſed to the top in the form of a thick ſcum, which they keep conſtantly taking off, and ſerves to feed poultry, horſes, &c.—The juice in the next place is purified in a ſecond copper, where a briſker fire makes it boil; and all the time the caſting up of the ſcum is promoted by means of a ſtrong lye compoſed of lime-water and other ingredients.—This done, it is purified in a third boiler, wherein is caſt a lye that aſſiſts in purging it ſtill farther, making it's impurities riſe to the ſurface, whence they are taken with a ſkimmer.—Hence it is removed to a fourth boiler, where it is farther purified by a more violent fire; and hence to a fifth, where it is brought to the conſiſtence of a ſyrup.—In a ſixth boiler the ſyrup receives it's full coction; and here all the impurities which the former lyes had left are taken away by the injection of a new one, and a water of lime and alum. In this laſt copper there ſcarce remains a third of what was put into the firſt, the reſt being waſted by frequent boilings and ſkimmings.—It is to be obſerved, that the ſize of the ſeveral coppers always diminiſhes from the firſt to the laſt, each being provided with a furnace to give a heat proportionable to the degree of coction the juice has received. In ſome large ſugar-works there are alſo particular coppers for boiling and preparing the ſkimmings for farther uſes.

By thus paſſing ſucceſſively a number of coppers, the juice of the canes is purified, thickened, and rendered fit to be converted into any of the kinds of ſugar hereafter mentioned, which are all prepared in the American iſlands. According to F. Labat theſe are, 1. Crude ſugar, or moſcovado, which is that firſt drawn from the juice of the cane, and whereof all the reſt are compoſed. The method of making it is that already deſcribed for ſugars in general; but here we may add, that, when taken out of the ſixth copper, it is put into a cooler, where, after ſtirring it briſkly together, it is let ſtand to ſettle, till a cruſt, as thick a crown-piece, is formed thereon. The cruſt being formed, they ſtir it again, then put it into veſſels, where it ſtands to ſettle till it be fit to barrel. 2. Strained ſugar, though ſomewhat whiter than the former, is prepared in the ſame manner, with this difference, that to whiten it they ſtrain the liquor through blankets, as it comes out of the firſt copper; which invention is owing to the Engliſh, who likewiſe put the ſugar into wooden forms or moulds, and, when it has purified itſelf well, cut it in pieces, dry it in the ſun, and barrel it up. 3. Earthed or clayed ſugar is that which is whitened by means of earth laid on the top of the moulds it is put into to purge itſelf, and after a long proceſs (too tedious to be here related) it is formed into loaves and baked, then pounded with huge wooden peſtles, and put up in barrels. This is the white powder ſugar. 4. Refined ſugar is boiled and freed from it's impurities by throwing in lime-water, eggs, and other ingredients, which the earthed ſugar is not; in other reſpects the proceſs is much the ſame, only more care and exactneſs is uſed, and the refined ſugar is drier and whiter.—Several other ſorts of ſugar might be mentioned, but theſe ſeem to be the chief that are prepared in the ſugar iſlands *.

BUT we muſt not forget to mention another commodity produced from the juice of the ſugar-cane, viz. rum, a ſpirituous liquor well known amongſt us, and diſtilled in great quantities in Jamaica and Barbadoes. The particular proceſs of this diſtillation we ſhall not attempt to deſcribe, but only obſerve, that Jamaica had for many years produced fine ſugars, before the planters knew how to make rum; but, having learnt the art from thoſe of Barbadoes, they are now reckoned to excel them in that commodity.

To this account of the ſugar-cane and it's produce perhaps it will not be amiſs to ſubjoin a few obſervations on the qualities of ſugar. Hoffman, ſpeaking of ſugar, ſays, that it is a temperate ſalt, and friendly to nature; but, however, it has been a point much diſputed, whether in general it is wholeſome or otherwiſe. According to ſome, it is heating, emollient, reſolvent, purgative, and calculated to reſiſt putrefraction; good for the ſtomach, breaſt, and lungs; promotes expectoration, ſoftens internal tumours, cleanſes ulcers of the kidneys,

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* Here it ſeems proper to add, (what ſhould rather have been obſerved before) that in Canada and New England they obtain a ſpecies of ſugar from the juice of a kind of maple-tree, by boiling it till ten gallons are reduced to a pint and a half, and then keeping it ſtirring to prevent it's candying. A good tree, Mr. Dudley tells us, will yield twenty gallons of juice; and the phyſicians look upon the ſugar to be as good for common uſe as that of the ſugar-cane, and to exceed all others in it's medicinal virtue. The famous ſyrup of maidenhair of Canada is made with this ſugar; which, as brought to us, is of a greyiſh colour, and taſtes like other ſugar.—See Philoſophical Tranſactions, No. 171 and 364.

kidneys, bladder, and inteſtines, and hinders all corroſive ſubſtances from acting eaſily on the internal parts. According to others, it is injurious to ſcorbutic, hypochondriac, hyſteric, and feveriſh patients, if uſed in conſiderable quantities: and others aſſert, that it impairs the appetite, weakens digeſtion, produces flatulencies, and generates gripes and dyſenteries. It is alſo ſaid to lay a foundation for the piles; and ſome foreign phyſicians have aſcribed the frequent conſumptions in England to the copious uſe of ſugar. Whilſt ſome aſſert that ſugar generates worms, others are as poſitive that it deſtroys them. It is generally agreed however, that the common coarſe ſugars foul the cutaneous glands, and excite ſcorbutic ſpots and blotches. Rotten teeth are often the conſequence of uſing ſugar too copiouſly, and thoſe who do ſo are likewiſe ſaid to be liable to fevers. It is farther to be obſerved, that ſugar in ſome degree differs in medicinal virtues according to it's degree of fineneſs; the moſcovado, or that firſt procured from the cane, being more relaxing and purgative than the finer ſugars. Loaf-ſugar is ſaid to animate the blood, to cut phlegm, and promote expectoration. Sugar-candy is moſt proper in colds, as it melts ſlowly in the mouth, and thereby gives time for the ſaliva to mix with it, and thus to blunt the acrimony of the phlegm.

THE culture and management of indigo was formerly a very conſiderable and profitable buſineſs in Jamaica, where the plant grew in greater plenty than in any other of our colonies; inſomuch that (according to the account of a gentleman who reſided a good while in that iſland) the profits of the planters of it in the pariſh of Vere, where it was chiefly cultivated, were ſo great, that there uſed to be three hundred gentlemens' coaches at the pariſh-church on a Sunday. But whether it be owing to the want of ſeaſons, or to the high duties laid on that commodity, (which the planters ſay was the caſe) at preſent there is not a ſtalk of indigo to be found in that pariſh, nor any other veſtiges of it's former proſperity. The duty laid by our legiſlature on indigo was three ſhillings and ſix-pence a pound, which could be borne when a pound weight of it was worth ten ſhillings, but on it's falling to four ſhillings was inſupportable. We became ſenſible of this too late, and took off all duty upon indigo of our own growth; and there have been ſome attempts of late to revive this manufacture in Jamaica, but without ſucceſs, the people there having loſt the art. Indeed, in the year 1743, Mr. Macfarlan made a ſmall quantity of very good indigo in the pariſh of St. Thomas in the vale; but we cannot learn whether he has ſince proſecuted his deſign. However, it is pretty certain, that much of the indigo at preſent imported from our ſugar colonies is the produce of the neighbouring French and Spaniſh plantations.

THE cacao-tree, of which there are many walks or plantations in Jamaica, has been abundantly ſpoken of already; and therefore we need ſay no more of it here, but proceed to the deſcription of the tree that produces the aromatic ſpice called pimento or Jamaica pepper, which grows plentifully on the hilly parts of that iſland. According to Sir Hans Sloane, the trunk of this tree is as thick as a man's thigh, riſing ſtraight up to the height of about thirty feet, covered with a very ſmooth ſkin of a grey colour, and branching out on every ſide. The ends of the twigs are ſet with leaves of ſeveral ſizes, the largeſt being four or five inches long, and two or three inches broad in the middle, from whence they decreaſe towards each extremity.

They are ſmooth, thin, and ſhining, of a deep green colour, without any inciſures, and ſtand on long foot-ſtalks. When bruiſed, they are very fragrant, and in all things reſemble the leaves of a bay-tree*. The extremities of the twigs are branched into bunches of flowers, each ſtalk ſuſtaining a flower bending back, within which are many ſtamina of a pale green. Theſe are ſucceeded by bunches of crowned berries, greeniſh when ſmall, but bigger than juniper berries when ripe, and, like them black, ſmooth, and ſhining. They contain a moiſt, green, biting pulp, and two large ſeeds ſeparated by a membrane, each of which is hemiſpherical, and both together form a globe. Theſe trees flower in June, July, and Auguſt, but ſooner or later according to their ſituation, and the different ſeaſon for rain; and, after they flower, the fruit ſoon ripens. Where theſe trees grow, they are generally left ſtanding when other trees are felled, and are ſometimes planted where they never grew, on account of the great profit from the cured fruit, which is yearly exported in large quantities to Europe. The curing and preſerving this fruit for uſe is attended with no great difficulty, being uſually done by the Negroes, who climb the trees, and pull off the twigs with the unripe green fruit, which they carefully ſeparate from the leaves and ripe berries, and then expoſe them to the ſun for ſeveral days, ſpreading them thin on cloths, and turning them at intervals, taking care to keep them from the dews, which are very great in Jamaica. By this means they become dry and ſhrivelled, and from a green change to a brown colour, and then they are fit for the market. They are of different ſizes, but generally of the bigneſs of black pepper; and, having a peculiar mixed taſte and ſmell, ſomewhat reſembling cloves, juniper-berries, cinnamon, and pepper, they have obtained the name of all-ſpice. The ſmalleſt and moſt fragrant are accounted the beſt.—This fruit is the moſt temperate, mild, and innocent of all common ſpices, and preferable to all the East-India commodities of this kind, which it far ſurpaſſes in promoting digeſtion, attenuating viſcidities, moderately heating and ſtrengthening the ſtomach, expelling wind, and doing thoſe friendly offices to the bowels which we generally expect from ſpices. It is uſually ſold by the druggiſts for carpobalſamum, but it is not that fruit, and ſeems more fragrant, and leſs aſtringent and balſamic.

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* Mr. Smith ſays the leaves of the Jamaica pepper-tree can ſcarce be diſtinguiſhed from bay-leaves, only they are of a much ſtronger aromatic ſmell. In Nevis, and we ſuppoſe in other iſlands where it grows, they adorn their churches with ſmall boughs of it at Chriſtmas, the fruit being green upon them, juſt as we do our churches in England with holly and ivy at that ſacred ſeaſon.

THE ſame learned author, from whom we have taken the preceding account of the Jamaica pepper-tree, deſcribes likewiſe the wild cinnamon-tree, which grows in that iſland, and whoſe bark is commonly ſold in the ſhops for cortex Winteranus, the bark of a tree ſo denominated from captain Winter who brought it from the ſtreights of Magellan in his voyage with Sir Francis Drake. However, though theſe are barks of different ſorts, and by their outward appearance ſeem quite different from each other, yet the one may be uſed as a ſuccedaneum to the other, though the true cortex is much to be valued beyond the falſe, being far more aromatic.—The trunk of the wild cinnamon-tree is about the thickneſs of the Jamaica pepper-tree, and riſes to the height of twenty or thirty feet, having a lovely top, with many branches and twigs hanging downwards. It has an outer and an inner bark, the former whereof is of an aromatic taſte, as thin as a ſhilling, of a grey colour, with ſome white ſpots here and there upon it, and ſeveral ſhallow furrows of a darker colour running variouſly through it. The internal bark is as thick as a crown piece, ſmooth, of a whiter colour than the external, and of a much more biting and aromatic taſte, ſomething like that of cloves, and not glutinous like cinnamon, but dry and crumbling between the teeth. The leaves grow on foot-ſtalks an inch long, coming out near the ends of the twigs without any order. They are two inches long, and one broad near the end, where they are roundiſh, being narrow at the beginning, and increaſing in breadth almoſt to the extremity. They are of a yellowiſh-green colour, ſmooth and ſhining, without any inciſures about the edges, and ſomewhat reſemble the leaves of bay. The extremities of the twigs are branched out into large bunches of flowers, each having a foot-ſtalk, and a calix at the top made up of little leaves, wherein ſtand five ſcarlet or purple petala. Theſe flowers are ſucceeded by many caliculated berries, the ſize of a large pea, being roughiſh and green, and containing within them a mucilaginous thin pulp, and four black ſhining ſeeds, of an irregular figure. All the parts of this tree, when freſh, are very hot, aromatic, and biting to the taſte, like cloves; and it grows on the low lands, or ſavannah woods, and very frequently on each ſide of the road between Paſſage Fort and the town of St. Jago de la Vega, as alſo in Antegua and the other Caribbee iſlands. The bark of this tree is much in uſe both in the Engliſh plantations and in Europe; and it is eaſily cured, being only cut off and dried in the ſhade. The common ſort of people uſe it in the Weſt-Indies inſtead of all other ſpices, it being thought good to correct the immoderate humidities of the ſtomach, to help digeſtion, expel wind, &c. It is there, as well as in Europe, thought to be a very good remedy againſt the ſcurvy, and to cleanſe and invigorate the blood, being uſed for thoſe purpoſes by druggiſts and apothecaries under the name of the cortex Winteranus, which (as before obſerved) it is not, though it may very well ſupply it's place. In the Weſt-Indies it is mixed and given with ſteel and other medicines; but Sir Hans ſays, if the patient be of a hot conſtitution, it does more harm than good, being of a warm nature. If rum be mixed with this bark, it loſes much of it's diſagreeable ſmell; and, if it be mixed with water, and diſtilled per veſicam, it yields an aromatic oil, ſinking to the bottom of the water like oil of cloves.

THE ſame learned phyſician and naturaliſt obſerves, that in Jamaica and the neighbouring iſlands, as well as on the continent of America, there grow ſeveral ſorts of miſletoe, to which the doctor gives the name of viſcum, with an epithet to diſtinguiſh the various ſpecies. One of this family he calls viſcum caryophylloides, from having it's ſeed-veſſel ſomewhat like that of a clove july-flower. The branches of this plant are incompaſſed with many brown ſmall fibres, which take firm hold of the bark of the trees whereon it grows; not indeed like miſletoe, which penetrates into the bark or wood whereon it grows, but only interwoven and matted together, ſo as to afford the plant a firm ſupport. From the leaves, which grow in the manner of leeks, it has obtained the name of wild pine or aloes. Each of them is two feet and a half long, three inches broad at bottom, and terminating in a point, having their inſides concave, ſo as to be capable of containing a pretty deal of water, which in the rainy ſeaſons falls upon the uppermoſt parts of the ſpreading leaves, and is thence conveyed by natural channels into the reſervatory. The leaves, after they are ſwelled out like a bulbous root to form this baſon or ciſtern, bend inwards, or come again cloſe to the ſtalk, whereby they hinder the evaporation of the water by the heat of the ſun. Below they are of a light green colour, and like leeks above; and from the middle of them riſes a round, ſmooth, ſtrait ſtalk, three or four feet long, that has ſeveral branches, and by inciſion yields a clear mucilaginous gum. The water, thus received in the cavities of the leaves, is not only neceſſary for the nouriſhment and life of the plant, but likewiſe very uſeful to men, birds, &c. who reſort to it to quench their thirſt, and ſeldom go away without refreſhment. This vegetable grows on the arms or trunks of trees, eſpecially when they begin to decay, the bark being then more diſpoſed to receive the ſeed, and yielding more eaſily to the fibrils of the root of the plant.—But what is particularly ſurpriſing in this plant is the contrivance of it's ſeeds, which are oblong, pyramidal, and very ſmall, covered with very ſoft hair or down, that they may be carried by the wind like the tomentous ſeeds of hieracium, lyſimachia, &c. and the more readily ſtick to the branches and prominent parts of the bark of trees. As ſoon as it ſprouts or germinates, though it be on the under part of a bough, it's leaves and ſtalk riſe perpendicularly; for, if it had any other poſition, the reſervatory before mentioned, made by the hollow leaves, could not be found, nor hold the water ſo neceſſary for the life and nouriſhment of the plant, and ſo uſeful to men, birds, and inſects.

THE water-with of Jamaica is likewiſe very ſerviceable on the ſame account; for Sir Hans (as quoted by Dr. Derham) informs us, that it grows on dry hills, and in the woods, where no water is to be met with; and it's trunk, if cut into pieces, and held by either end to the mouth, affords ſo plentifully a limpid, innocent, and refreſhing water, as gives new life to the thirſty traveller or hunter: ſo that the inhabitants of Jamaica, and the other iſlands where it grows, look upon it as an immediate gift of Providence, to relieve them in their diſtreſs.

SIR Hans obſerves farther, that there are ſeveral plants in Europe which in ſome particulars reſemble the viſcum above deſcribed. Thus, ſays he, the virga paſtoris, or wild teaſel, has leaves incloſing it's ſtalk, and ſo ſet by pairs oppoſite to each other, and joined by their baſis, that they form a cavity fit to contain water, which undoubtedly contributes to the perfecting of the plant. Several fuci have been diſcovered to have ſeeds, which, when ripe, break out of their places, and by means of a glutinous juice faſten themſelves to ſtones or other ſubſtances at the bottom of the ſea where they are to grow. The common viſcum has ſuch a glutinous matter for faſtening it's ſeeds to the bark of trees; and ſmall moſſes, heretofore thought to have no ſeed, are now known to have it in great plenty, but ſo very minute, that the doctor ſaw it riſe from the ripe head in the form of ſmoke, which undoubtedly is deſigned that the ſeed may be carried to walls, trees, and other fit places for it's vegetation. Sir Hans farther obſerves, that there are many ſpecies of plants with pappous or tomentous ſeeds, which, when ripe, are conveyed by the wind to places proper for their reception. A remarkable inſtance of this kind is the aſter-canadenſis, which, though brought originally from

Canada, is now become a wild plant in many parts of Europe, the ſeed having been carried by it's wings or feathers to a great diſtance from the gardens wherein it was firſt planted. There are likewiſe many plants (continues our author) with ſeed-veſſels ſo contrived, that they throw off the ſeed with a ſpring, and ſometimes a briſk noiſe, to a conſiderable diſtance. Moſt plants that have pods, as furze, crane's-bill, &c. have this mechaniſm in order to ſow themſelves; and amongſt theſe none is more ſurpriſing than a plant in Jamaica called ſpirit-weed, whoſe ſeed-veſſel, when the ſeed is ripe, opens itſelf inſtantly upon the leaſt touch of any thing that is wet, and with a noiſe throws the ſeed ſeveral ways; the deſign of nature being, as the doctor reaſonably ſuppoſes, to keep the ſeed in it's veſſel, the beſt preſerver of it from injuries, till the rainy ſeaſon comes on, which is proper for ſowing. The lychnis, poppy, &c. have their ſeeds in heads, which, being open at top when they are ripe, by their ſtructure and the winds are ſcattered and directed to all quarters.—Theſe and many other inſtances, very wonderful and obvious, though not taken notice of, ſhew the great endeavours of nature to propagate the ſpecies, every one of which, the doctor thinks, has been preſerved to us from the creation to this day.

In Jamaica they have three ſorts of cotton-trees, one of which creeps like a vine, the ſecond is thick like a buſhy dwarf-tree, and the third is as tall as an oak; which laſt indeed is of no uſe in the cotton manufacture, but is of very quick growth, and ſo thick that they are very frequently ſcooped into canoes. The creeping ſort we have already taken notice of; and, as for the ſecond, after producing many beautiful flowers, it is loaded with a fruit as large as a walnut, whoſe outward coat is quite black. It bears pods five inches long, which, when full ripe, open and diſcover a down extremely fine and white, which is the cotton. The people gather it as ſoon as it cracks, and it's ſeeds are ſeparated from it by a mill, as heretofore obſerved. The bark of the tree is browniſh, the leaves ſmall, and divided into three parts; and it bears a flower about the bigneſs of a roſe, conſiſting of five leaves of a bright yellow colour, which have ſeveral purple ſtreaks towards the ſtem, and a yellow button or crown, ſurrounded with fibres of the ſame colour.

GINGER is another root that is cultivated in Jamaica, ſhooting forth blades in ſhape like thoſe of wheat; and, when it is ripe, the roots are dug up and ſcraped by the Negroes, to clear it of it's outer ſkin, and kill the ſpirit, or elſe it would be always growing. If they have not hands enough to ſcrape it, they are forced to ſcald it; but this is ſold much cheaper than what is ſcraped, which is white and ſoft, whereas the ſcalded will be as hard as wood.

THE maſtich-tree is a very hard timber, that grows to a vaſt height; and is generally uſed, like thoſe called iron-wood and bulley-tree, for chariot-wheels and mill-work.—The ſoap-tree grows chiefly about Spaniſh-town, bearing berries as big as muſket-balls, which, without any other ingredient, is ſaid to waſh better than any Caſtile ſoap, though in time it rots the linen; but in reality this is no other than that ſpecies of the aloe-tree that was lately ſhewn by Mr. Cowel at Hoxton.

THE manchineel-tree is like our Engliſh dwarf apple-tree, but it's leaves reſemble thoſe of the pear-tree in colour, ſhape, and bigneſs. The fruit (according to Mr. Smith) is of the ſize, ſhape, and ſmell of an Engliſh crab, and, though fair to the ſight, is a very rank poiſon, from whence ſome call it the eve-apple. There is a thin glutinous matter about the ſides of the leaf; and, if your face happen to touch one of them as you ride along the road, our author ſays he knows by experience it will raiſe an immediate bliſter, which ends in a ſcab. Break a bough, and there iſſues out a milk-white water, which is ſtill more poiſonous, and the fruit more than that. Mr. Smith adds, that he was credibly informed, that a mancheneel-ſtick, with the bark peeled off and brought to London, will, if one end of it be put into a pail of new milk, and ſtirred half a dozen times round, immediately turn the whole into curds and whey; ſo powerful is the ſtrength of it's poiſon, even at ſuch a diſtance of time!

The Rev. Mr. Hughes obſerves, that, though the juice of this tree is one of the ſtrongeſt poiſons yet diſcovered, it's effects have been greatly exaggerated; for it has been pretended, that the heads of thoſe who ſleep under it's ſhade ſwell, and they become blind; that, if the leaves do but touch the the naked ſkin, they raiſe puſtules, attended with violent pains, which prove mortal, unleſs helped with water and ſalt, or faſting ſpittle; but this is not true, nor is any ill conſequence to be feared from the leaves touching the naked body unleſs they are bruiſed; and the white milky juice they contain is ſuffered to pervade the pores, which, if it does, it raiſes bliſters like thoſe of the confluent kind in the ſmall-pox, cauſing acute pains; but ſimple drops of rain-water, falling from the leaves upon the ſkin, have no ill effect, as Mr. Hughes himſelf has frequently experienced. The tree is of a very quick growth, and is ſeldom found growing to any perfection, but in a looſe and ſandy ſoil, near the ſea or other water. The trunk, when full grown, is generally from two feet and a half to three feet in diameter, branching moſt commonly from three to fifteen feet high from the ground. The timber is remarkable for it's beauty; the heart, which is very ſmall in proportion to the bulk of the tree, is hard and ſolid, of a pale yellow, with a greeniſh caſt, interſperſed with ſmall blackiſh veins, and the wood durable: the bark is of a ſleek, whitiſh grey, the branches many, and covered with thick, ſmooth, ſhining leaves, among which are long pendulous catkins. It bears a fruit reſembling, in it's form, the round ſort of crab-apple we have in England, of a beautiful colour, and fragrant ſmell. Yet the pulp does not exceed one-ſeventh of an inch in depth, the inſide being a hard, ſtony kernel, in which are included the ſeeds. The juice of the apple is of the ſame colour and quality as that of the leaves; and yet Mr. Hughes ſays he has known a woman big with child, who longed for them, eat of them without any apparent bad effect; but that he cannot ſay, the fragrance of the ſmell, or the tempting looks of the fruit, have induced others to follow her example, by ſo dangerous an experiment. Yet, if ſome of this crude, milky juice, only falls upon a horſe, the hair of the part effected ſoon falls off, and the ſkin riſes up in bliſters that will require a long time to heal. Formerly no one dared to cut down theſe trees, without firſt making a large fire round them, in order to burn the bark, and dry up the ſpry and juices that fly from them in cutting; but now Negroes, intirely naked, venture to cut them down, only firſt rubbing their whole bodies with lime-juice, which prevents the ſap from corroding or ulcerating the ſkin. Our author adds, that it is a remarkable inſtance of the goodneſs of God, that, wherever a manchineel-tree grows, there is always found a white-wood, or a fig-tree near it, the juice of either of which is an infallible antidote againſt the poiſon; ſalt-water is no leſs efficacious; and as theſe trees grow by the ſea ſide, this remedy is likewiſe near at hand.

As to the animals of Jamaica, there are few colonies ſo well ſtored with cattle as this. Their horſes, aſſes, and mules are cheap, their cows and oxen large, and there would be much greater numbers of black cattle, but that the Engliſh mind planting more than grazing, which has ſo leſſened their ſtock of cattle, that they are ſupplied with fleſh from the northern colonies, and ſome of the neighbouring iſlands. Their ſheep are generally large and fat, and the fleſh good; but the wool, being long and hairy, is good for nothing. Goats they have in abundance, and hogs, whoſe fleſh is very good; but they have no deer nor hares. They have all ſorts of fowl, both tame and wild; and more parrots than in any of the other iſlands. Pigeons, ſnipes, turkeys, geeſe, ducks, &c. are very common in Jamaica; and they have the pelican, a deſcription of which we have formerly given from Sir George Wheeler. This bird lives upon ſmall fiſh it picks out of the ſea, and rooſts at night on high rocks, ſitting with it's head towards the wind. It has a very long neck, covered with hair inſtead of feathers on the upper part, and below it has two membranous bags or ventricles, ſtretching to the extremity of it's under bill, wherein it reſerves it's prey when gorged with eating, or what is intended as food for it's young. It appears ſlow and heavy in flight, but has a piercing eye to diſcern the little fry on which it ſubſiſts, and on which it falls down from a conſiderable height in the air, and catches them either on the ſurface of the water or by diving. The fleſh of it has a fiſhy taſte, which it loſes by being covered two or three hours with earth.

THOUGH we have already ſpoken of the tortoiſe or turtle-fiſh, it ſeems proper to add, that the coaſts and rivers of Jamaica abound with the moſt delicious kind, which are eſteemed one of the niceſt dainties at the tables of our gentry and merchants. They are chiefly found about twenty leagues from point Negril, near the Cayman iſlands, to which all the tortoiſes, from the Caribbees to the bay of Mexico, repair every ſummer to lay and hatch their eggs. It is ſaid they float aſleep in a calm day on the ſurface of the water, and the ſeamen row to them gently, and either take them byſtriking them with irons, or inſnaring their legs with a rope and running-net.—Dr. Stubbs, who communicated an account of this animal to the Royal Society, ſays it's blood is colder than any water he ever felt in Jamaica, and yet it's heart beats as ſtrongly, and it's arteries are as firm as any creature he ever knew. If their blood at any time be hotter than the element they move in, they die. They have a ſort of teeth, with which they bite much more of the ſubmarine graſs than they ſwallow, ſo that the ſurface of the water where they feed is ſometimes covered with what they looſen from the bottom. If they are hurt on ſhore, by throwing them on their backs, or otherwiſe, they are obſerved to ſhed tears; and the head being cut off, they die inſtantly. When thetortoiſes come upon the above-mentioned coaſt to lay their eggs, they continue their intimacy ſo long, that the male is reduced to a kind of jelly within, and is at length carried home by the female.

The mountains of Jamaica breed numberleſs adders and other noxious animals, as the fens and marſhes do the guana and galliwaſp; but theſe laſt are not venomous. Of all the inſects produced in that iſland there is none ſo miſchievous as the ciron or chegoe, which eats into the fleſh of the Negroes, ſometimes making their toes bare to the very bone.

There are in Jamaica a ſort of flies called fire-flies, on account of their contracting and expanding their light as they fly. In the day-time they look green, but glow and ſhine in the night, and do ſo even ſome days after they are dead. By a few of them, it is ſaid, one may diſtinctly read the ſmalleſt print, provided they are laid cloſe to the book, and moved from line to line.

We now proceed to take a view of Barbadoes, one of the chief of the Caribbees, and the moſt conſiderable of all the Britiſh iſland-colonies next to Jamaica. The climate here is very hot, eſpecially for eight months in the year; but the heat is not ſo exceſſive as in the ſame latitude on the continent, which may be ſaid of the American iſlands in general; and it is obſervable, that, though people in Barbadoes ſweat very much, they are not ſo weakened by it as we are by the heat in England in July and Auguſt, nor are they ſo apt to be thirſty. The length of the day is very near the ſame all the year round, the ſun always riſing at ſix and ſetting at ſix, or within half an hour before and after it; but the twilights are ſo ſhort, that it is preſently dark after ſun-ſet.

The atmoſphere is generally ſerene and clear; and, from the total abſence of froſt, ſnow, and hail, it is never liable to the ſudden viciſſitudes ſo common in other climates, to the northward and ſouthward of the tropics. The air is, in general, very healthful, which is chiefly owing to it's having neither bogs nor marſhes of ſtagnated waters, nor large foreſts, which generate a moiſt air. It ſometimes happens here, that large pieces of ground, planted with ſugar-canes, and even with plantain and banana trees, have ſlid down to the vallies, from the ſides of the hills. This happens in very rainy ſeaſons; for, the ſoil upon thoſe hills being frequently not above eight or nine inches deep, and of an oozy and ſoapy nature underneath, it eaſily ſeparates from the next immediate ſubſtratum, which is of a ſlippery chalk, flat ſtones, or looſe gravel. When the ſoil ſlides in large pieces, it's motion is leſs violent than when it is confined in narrow chaſms, in the meeting of two hills, where, the collection of the water being conſiderable and heavy, inſtead of gliding ſoftly between the two ſtrata, it breaks out in different places at once; and then runs down the precipice, a mingled torrent of earth and water. This iſland abounds with caves, ſome of which are of great extent, with the top crowded with innumerable petrified iſicles.

AMONG the foſſils, the moſt remarkable is an oily bituminous exudation, of a dirty black, inclining to a green. It is procured by digging a hole or trench near the places where it oozes out of the earth; this, by degrees, fills with water, that has a thick film or cream of this liquid bitumen ſwimming on the ſurface, from whence it is ſkimmed off, and preſerved in earthen jars, or other veſſels. It is of ſo inflammable a nature, that it ſerves to burn in lamps; and is alſo uſed with great ſucceſs both in the cure of cutaneous eruptions, and in paralytic and nervous diſorders. In St. George's pariſh are frequently dug up lumps of a tranſparent, reſinous ſubſtance, reſembling reſin, from which it is principally diſtinguiſhed by the fragrance of it's ſmell; and, on comparing it with the gum produced by the birch gum-tree, one would think it of the ſame ſpecies. There is another ſpecies of bitumen, of a ſolid ſubſtance, here called munjac: this is dug out of the earth on the ſides of ſeveral hills, and nearly reſembles the bitumen found in the Dead ſea, of which we have already given a deſcription. If by accident any of theſe veins take fire, they continue burning a long time, though in a ſlow, dull manner; for, the veins being ſurrounded with earth, it crumbles, and damps the flame into which it falls.

EXCEPTING that of Bridge-town in Carliſle-bay, there is ſcarce a harbour in the iſland, nor a ſtream that deſerves the name of a river; but they have wells of good water almoſt all over the iſland, without digging very deep for it; and likewiſe large ponds and reſervoirs for rain-water. For the moſt part it is a plain level country, with ſome ſmall hills; and it's woods have been cut down to make room for plantations of ſugar-canes, which now take up almoſt the whole iſland, and render it the moſt valuable colony, for it's ſize, that Great Britain ever poſſeſſed. As to the cultivation the cane and the manufacture of ſugar, we refer the reader to what has been already ſaid in treating of Jamaica.

THE trees in Barbadoes, as well as in the neighbouring iſlands, are perpetually bearing fruit or bloſſoms; ſo that at the ſame time one may ſee the blooming beauties of the ſpring, and the mature glories of the ſummer. Here are all ſorts of oranges and lemons, ſweet, ſour, and ſeville in abundance, which laſt are large, and their juice delicious. The fragrancy of the juice is as remarkable as the beauty and ſize of the fruit; and the weight of the citrons often bend the branches of the tree to the ground. With the rind or peel of citrons the ladies of Barbadoes make the fineſt cordials and ſweetmeats; and indeed they are generally allowed to excel the Engliſh in the art of conſerving, having the advantage of the fineſt ſugar and fruits, with abundance of choice roots, &c. that are both wholeſome and agreeable to the palate.

THE lime-trees in Barbadoes are as prickly as our holly-buſh, and they were formerly uſed by the planters for hedges. The tree grows ſeven or eight feet high, full of leaves and fruit, which ſo much reſemble a lemon, that they are hardly to be diſtinguiſhed at a little diſtance. Since punch has been a faſhionable liquor in England, ſome tuns of lime juice have been annually imported to our iſland. China limes are alſo frequent there, alſo China or ſweet lemons, of which the latter are of moſt uſe and value. The tamarind and palm-tree are not natives of Barbadoes, but were brought thither eighty or ninety years ago. Here are alſo fine pine-apples, which we have heretofore deſcribed; with aloes, mangroves, calabaſhes, cotton-trees, bulley-trees, maſtich-trees, cedars, cacao-trees, and other vegetables already ſpoken of ſufficiently.

THERE are ſome plants however, that grow in Barbadoes, which deſerve a little more particular notice; as the fig-tree, which has a trunk about as big as an elm, though the fruit is leſs than a cherry, inſipid, and little regarded. The trunk ſhoots out beards or fibres, which take root in the ground; and, if ſuffered to grow, would become a grove; from whence we are apt to imagine it is the ſame as the banian-tree mentioned in the Eaſt-Indies.

THE caſſia fiſtula, which has been heretofore deſcribed, is alſo common in Barbadoes, and is a tree of ſuch quick growth, that it has been known to riſe eight feet in a year's time. This, according to Mr. Smith, is a ſtrait-bodied tree, thirty feet high, with ſpreading branches, from which hang the pods, which are about twelve inches long, and of a dark brown colour.—The plantain-tree is alſo remarkable for it's ſwift growth, and three or four roots ſhoot from one root; but there is a wild ſort, which is of a ſcarlet colour, and the fruit good for nothing. A tree alſo grows in this iſland, that bears large yellow plums, which, being ſteeped twenty-four hours in water, and then ſtrained, make a good drink.—Guana-trees, which yield a wholeſome fruit, and ſoap-berries, about the bigneſs of a ſloe, grow likewiſe in great plenty.

The guava is a tree common enough in Barbadoes and the neighbouring iſlands, as well as the continent, ſomewhat reſembling a cherry-tree, and bearing a fruit of the ſize of a ſmall lemon, which has a ſoft but thick rind, and is of a delicate flavour. The rind incloſes a pulpy ſubſtance, which is not unlike a quince, and makes the beſt jelly and marmalade that can be imagined. What is remarkable of this tree, it has been known to bear fruit when not above ſix inches out of the ground, though it grows to the height of eighteen or twenty feet.

The cuſtard-apple, which grows on a tree of a fine clear red colour, is eaten by the ſervants and ſlaves, being kept a day after gathering, when they take out the pulp, which is like a cuſtard, with a ſpoon.—The pomegranate has ſmall leaves of an olive green, and grows in Barbadoes, but the fruit is not ſo large as in the ſouthern parts of Europe. —The prickled apple-tree bears a fruit ſhaped like a heart, which is of a pale green colour, and taſtes like a muſty lemon.

ONE of the moſt ſingular trees is the cabbage-tree, by ſome authors called the palmeto-royal, it exceeding all the other trees in height, beauty, and proportion. The trunk, ſays Mr. Hughes, bulges out a little near the ground, which gives it the becoming appearance of a ſubſtantial baſis, to ſupport it's towering height. It is generally as ſtraight as an arrow, and ſcarce can any pillar be more regular, eſpecially when it is of about thirty years growth. It, in this iſland, riſes above an hundred feet in height, and the trunk near the earth is then about ſix or ſeven feet in circumference, the whole body growing tapering to the top. The colour of the bark is like that of the aſh-tree, and is faintly clouded, at the diſtance of every four or five inches, with the marks of the fallen off branches: this colour of the bark continues till within about twenty-five or thirty feet of the extremity, where it changes, at once, from an aſh colour to a beautiful ſea-green, and this continues to the top. About five feet above the beginning of the green part, the trunk is incircled with it's numerous branches, all the lowermoſt ſpreading horizontally with great regularity; and the extremities of many of the higher branches bend weaving downwards, like plumes of feathers. Theſe branches, when full grown, are about twenty feet long, and are thick ſet on the trunk, riſing gradually above each other; and the top is terminated by a beautiful upright, green, conic ſpire. Theſe branches have a great number of green pointed leaves, ſome of them near three feet long, and an inch and a half broad, but gradually decreaſing in length, towards the extremities of the branches. It is obſerved that the lowermoſt branch drops monthly from the tree, carrying with it an exfoliated circular lamen of the green part of the tree, from the ſetting on of the branches, to the aſh-coloured part. This, and the branch, to which it is always fixed, fall together. When the loſs of this lower branch happens, the green conic ſpire, which iſſues from the center of the uppermoſt branches, and riſes ſuperior to all, burſts and throws, from it's ſide, a young branch, which continues the uppermoſt, till another of the lowermoſt branches drops off; and then the ſpire ſends forth again another branch, ſuperior in ſituation to the laſt; and thus the loſs of the branches below is ſupplied by thoſe above. The inſide texture of the leaves conſiſts of many longitudinal threads like filaments, which, being ſpun, are uſed in making cordage of every kind, and alſo fiſhing-nets. What is called the cabbage lies in many thin, white, brittle flakes, which have ſomething of the taſte of almonds; and, when boiled, is ſweeter and more agreeable, than the beſt cabbage.

The locuſt-tree, whoſe timber is uſed in wind-mills and other buildings, grows likewiſe in Barbadoes, juſt in the form of a Tuſcan pillar, being leſs and leſs all the way from the bottom to the top.—Iron-wood, which we have frequently mentioned already, ſo called from it's weight and hardneſs, is of a dark-red colour, and bloſſoms both in March and September. Here are alſo red-wood, prickled yellow-wood and lignum-vitæ.

Ginger is common enough in Barbadoes, and red pepper of two ſorts, one of them called bennet, and both very hot and ſtrong-ſcented.—They have grapes, but not ſo good as on the continent. Their cucumbers and melons are very large and fine, and eſpecially their water-melons are extremely refreſhing, and reckoned good for the ſtone.—The ſenſible plant, the humble plant, and the dumb cane, are alſo frequent in this iſland, with many other vegetables brought hither originally from England.

Besides the Damaſk and Provence roſes, which they have all the year round, they have divers ſorts of beautiful flowers, particularly that called the St. Jago flower, the ſmell of which however is very diſagreeable.—The paſſion-tree, whoſe bloſſom is here called the vinegar pear-flower, creeps along the ground like ivy; or elſe, with the water lemon-flower, is turned over arbors like our honey-ſuckles.—The flower, called in England the merveille de Peru, goes in Barbadoes by the name of the four-o'clock flower, becauſe it opens in the evening. The flower is larger than a primroſe, of the fineſt purple colour, and the ſeed is black, with an eye of purple.—There is a ſort of cabbage in this iſland, called the ſeven-years cabbage, which is much ſweeter than ours, and ſhoots out many ſlips that produce others when tranſplanted.—There is likewiſe plenty of excellent pulſe; but the European apples, pears, cherries, gooſeberries, and our other ſhrub-fruits, do not thrive well. Of their potatoes they make a briſk ſmall-beer called mobby.

As to their birds, the largeſt is the buzzard, leſs and ſwifter than our grey buzzard, and a great deſtroyer of rats. They have a large ſort of turtle-doves, but the leſſer is the fineſt, being ſhaped like a partridge, with grey, red, and brown feathers.—The humming-bird, already deſcribed, is common in this iſland; but their chief ſinging bird is a kind of thruſh, which hangs down it's head, and it's feathers are always ruffled. There is likewiſe another ſort called the quaking thruſh, ſomewhat like a wren, with a long bill, but it ſeldom or never ſings.—Another bird, called a black-bird, has white eyes, a note almoſt like a jay, and feeds chiefly on corn and bloſſoms. Theſe fly together in great flocks; and there is another ſort in colour like a fieldfare, with a large head, and therefore called a counſellor or loggerhead. It is extremely wanton in it's flight, and has ſuch a ſtrange note as is not to be imitated either by voice or inſtrument. They have a ſort of fowl called oxen and kine, and men of war birds, which fly twenty or thirty leagues from land, and return (as is ſaid) when they ſpy a ſail.

SOME authors ſay there are ſnakes in Barbadoes about a yard long, which will climb the walls of a dairy, enter the windows, ſkim the milk, and ſo return back again,' but never bite any body.—The moſt offenſive inſect in the iſland is the cockroach, which (as deſcribed by Mr. Smith) is a large, long, ſtinking fly, of a chocolate hue, that lays a long egg of a brown duſkiſh colour, quite flat at each end, ſo that it looks like a bit of a ſmall ſtick. This egg is glutinous, and will ſtick to any thing, where it remains till the heat of the weather produces the young; and the ſingularity of it lies in it's numerous brood, one ſingle egg affording above twenty flies. An acquaintance of our author's put one into a glaſs phial, and kept it there till it produced thirty young ones, which were of a whitiſh colour. This fly does not bite like a gnat, but lights upon any part of you in the evening, at which time it is particularly troubleſome.—There is alſo an inſect called merry-wings, much like our gnats; and that miſchievous one called a chego, as well as various ſorts of ants, eſpecially wood-ants, which deſtroy the timber in houſes. Theſe ants are white, and, when ſqueeſed, there iſſues a ſoft matter of the ſame colour.—The maſtich fly, ſo called from it's living upon the maſtich-tree, is ſaid to be ſo fragrant as to perfume the air, as it flies along. It is ſuppoſed to deſtoy the tree by a ſort of raſp in it's bill, with which it makes thouſands of holes, and leaves the wood it conſumes under the tree like ſaw-duſt.

THE neighbouring ſea abounds with moſt ſorts of fiſh, beſides the green turtle, which is extremely delicious.—The parrot-fiſh, when come to maturity, will weigh twenty pounds, is well-taſted, and has ſcales like a carp; he is of a green colour, has ſharp ſtrong jaws, but no teeth, and feeds chiefly on other fiſh.—The land crabs, though not peculiar to Barbadoes, but found in moſt of the neighbouring iſlands, may as well be deſcribed here, ſince they are common in that country. Mr. Smith, who ſpeaks of them in Nevis, ſays they live high up in the woods on the mountains, and make ſmall burrows in the ground like rabbets; that their fleſh is delicious eating, and their ſhells of a blood-red colour when boiled, but in other reſpects no ways curious. They annually travel down to the ſea, in order to waſh and ſhed their ſhells[*], at which ſeaſon they are eaſily caught, by the help of torches in the night, which is the time of their travelling. Their bodies (ſays our author) are much leſs than thoſe of our European ſea-crabs; and nature has ſupplied them with claws, which, though long and ſlender, enable them to lift up their bodies well, and to travel apace.—Other writers tell us, that theſe crabs live in the holes of houſes or hollow trees, eat herbs in the gardens, and are often met on the ſtairs, and in the parlours.

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[*] Compare this account with what is before ſaid of the ſoldier-crab in this volume.

After Barbadoes we think the iſland of Nevis deſerves our notice, in our account of which we ſhall chiefly follow the reverend Mr. Smith, whom we have ſo often quoted already. This iſland, our author informs us, is called the mother of the Engliſh Leeward Caribbee Iſlands, becauſe, as England is governed by kings, lords, and commons, ſo they are ruled by a governor, council, and aſſembly, who can make any law to laſt for twelve months; but, if they would have it continue in force longer, it muſt be confirmed by the king's privy-council; in all other caſes they are ruled by the comman ſtatute-law of England. St. Bartholomew and Anguilla (adds our author) have their reſpective governors appointed them by the governor-general of Nevis; and pirates are tried at Nevis only, as being the mother iſland.

The ſoil of Nevis, eſpecially in the valleys, is fruitful, but the riſing ground is ſtony, and the plantations therefore the worſe, the higher they are towards the ſummit of the mountain. This mountain, ſays Mr. Smith, has been meaſured with a quadrant from the bay at Charles-town, and it is ſaid to be exactly a mile and a half perpendicular, though our author thinks it is not ſo high, he allows it however to be higher than the mountain called Coal in Norway, or that called Skiddaw in Cumberland.—As to the product of Nevis, it is much the ſame as in the other Caribbee iſlands, ſugar being it's ſtaple commodity, and exchanged for all other inſtead of money. Their ſugar was formerly for the moſt part moſcovado; but they have ſince endeavoured to clay it, and had refiners from Barbadoes; however, they have not had much ſucceſs till within a few years paſt. Tobacco, cotton, and ginger were once much cultivated in Nevis, but of late little or none; the ſugar plantations now ſo much engroſſing the attention of the inhabitants, that fifty or ſixty ſhips have been laden with that commodity in a year for Europe. The iſland was formerly overſpread with purſlain, which, ſays Mr. Smith, was reckoned one of the worſt weeds belonging to us at our Bath-plain plantation. The aloes there are intirely neglected.

On the ſouth-ſide of St John's pariſh, of which Mr. Smith was rector, there is a conſiderable ſpot of ſulphureous ground, at the upper end of a deep rupture in the earth commonly called Sulphur-gut, which is ſo exceeding hot as to be preſently felt through the ſhoe-ſoals; and, ſome eggs being buried in it about an inch deep, for the ſpace of three or four minutes, they were as hard in that time as boiling or roaſting could have made them.

At the foot of the declivity adjoining to the ſouth ſide of Charles-town, there is a little hot river called the bath ſuppoſed to flow from the abovementioned ſulphureous ground, which is not above three quarters of a mile higher up in the country. This rivulet runs at leaſt half a mile before it loſes itſelf in the ſands of the ſea; and towards the ſea-ſide there is a particular part of it, where a man may ſet one foot upon a ſpring that is exceſſive cold, and the other upon another ſpring that is ſurpriſingly hot. All diſtempered people, both whites and blacks, find great benefit from this hot river; and our author ſays he knew a Negro boy, who was ſent from Barbadoes to Nevis for that purpoſe, cured of the leproſy by drinking and bathing in it three or four times a day, after having been twice ſalivated in vain. Mr. Smith himſelf bathed in it once a fortnight, and owns that it contributed not a little to his health and vivacity; and, the laſt nine months of his ſtay in Nevis, it was his cuſtom to walk to the river every morning at ſun-riſing, and drink a pint of it's water, which he found operated both by ſtool and urine.

At another place, a little to the ſouthward of Charles-town, there is a ſharp point of land that jets out a conſiderable way into the ſea; on the rocky extremity whereof Mr. Smith ſtood, whilſt a tall Negro ſlipped down from it into the water, and, taking ſome ſand from the bottom he gave it into our author's hand, who found it to be very warm, the man at the ſame time affirming that the ſpring at the bottom was ſo very hot, that he could ſcarce bear to ſet his foot upon it.—The water of Black-rock pond, about a quarter of a mile from Charles-town, is milk-warm, occaſioned undoubtedly by a mixture of ſuch hot and cold ſprings; and yet it yields ſeveral ſorts of excellent fiſh, and perhaps the beſt eels in the world, for they have not the leaſt rank taſte, and are therefore very much admired. The ſilver fiſh, found in this pond, is about eight inches long, has a bright body, and taſtes much like an Engliſh whiting; and here is alſo the ſlim-gut, in length from ten to about twenty inches, which eats like our gudgeons, and is not unlike them in colour.

Our author farther informs us, that they have a good ſpring and a ſhort ſtream at Nevis, which afford them mud-fiſhes, generally reckoned the richeſt fiſh they have; but, for his part, he always thought the cavally, a ſea-fiſh, the fineſt eating of any. This laſt is a very firm fiſh, weighs four or five pounds, and taſtes not unlike a mackarel. —They have likewiſe a peculiar ſort of cockles, which are delicious at the full of the moon, and increaſe and decreaſe in bulk as well as goodneſs, juſt as that luminary ſeems to increaſe or decreaſe to our ſight. The ſhells are of a triangular form, but not equilaterally ſo, two ſides of them being each as long again as the ſhort ſide; and all the three angles are rounded off or blunted. They are of a bright ſhining colour, like well-poliſhed white marble, and are generally ſtreaked very regularly with beautiful red or blue veins. The manner of taking them is this: a Negro goes into one of the ſandy bays up to his knees, where ſtooping down he takes up a baſket of ſand from the bottom, which he dips into the water till the ſand is waſhed away, and the cockles are left behind.—It is remarkable, that this ſort of cockle is not to be found, as far as Mr. Smith could learn, at any other of the Leeward Caribbee iſlands; nay, they have been carried to St. Chriſtopher's, and would not propagate there, though the neareſt end of that iſland is within four or five miles of Nevis.

A METHOD of fiſhing, or rather fiſh-hunting, practiſed in Nevis, and deſcribed by our author, ſeems worthy our obſervation. When ſeven or eight gentlemen have an inclination for this diverſion, they ſend their ſlaves to the woods to get ſome of the bark that grows upon the roots of a tree called dog-wood, which is next morning pounded very ſmall, put into ſacks, and carried to the rocky part of the coaſt, where it is ſteeped till it be thoroughly ſoaked with the ſalt water, and then well ſqueeſed by the Negroes to get out the juice. This juice preſently ſtains the ſea with a reddiſh hue, and, and being of a poiſonous nature, will in an hour's time make the fiſhes, ſuch as old wives, rock-fiſh, welchmen, &c. ſo intoxicated as to ſwim on the ſurface of the water quite heedleſs of danger; when the Negroes purſue them, and either take them by ſwimming or diving after them, their maſters ſtanding on the rocks to ſee the paſtime.—This poiſon, Mr. Smith obſerves, kills millions of the ſmall fry; and he imagines it muſt likewiſe deſtroy the ſhell-fiſh that lie at the bottom, and are leſs qualified to eſcape it's effects by moving into purer water. Beſides, as they naturally die every year in conſiderable numbers, it is no wonder that in the hurricane months their ſhells are caſt up in abundance on the rocky ſhore of the iſland. That they are ſo caſt up is certain, but Mr. Smith acquaints us, that their colours are not bright or beautiful, till they have lain for ſome time upon the ſhore to be dried and poliſhed by the heat of the ſun, which ſcorches off ſuch moſs or filth as at firſt ſticks about them, and hinders the eye from perceiving thoſe inimitable ſtrokes of nature's pencil with which they are adorned.

AFTER having mentioned ſeveral beautiful ſhells, of which he ſent ſpecimens to England, Mr. Smith gives us another remarkable particular relating to the productions of the ſea about Nevis. The lobſters there, ſays he, exactly reſemble the Engliſh ones in ſize, colour, and ſhape, except that their two large claws are not ſo big in proportion to their bodies; but he had like to have loſt his life by one circumſtance attending them, which is this: ſuch of them, it ſeems, as are found on the weſtern ſide of the iſland are reckoned fine eating, but thoſe taken on the eaſtern are poiſonous, which is attributed to ſome unwholeſome ſort of food they meet with there, by ſome imagined to be veins of copperas. This poiſon, as our author experienced, works by dreadful ſtools and vomits.

WE have not yet taken notice of the porpus, a fiſh common enough in the European ſeas, but very different, according to Mr. Smith, from thoſe found in the American. In his voyage towards the Caribbee iſlands, he ſays they were more than once purſued by millions of porpuſſes, which ſwam along by the ſhip like an arrow out of a bow, though they were then under a briſk gale of wind. They were at leaſt two hours in paſſing by after that manner, the ſea being covered with them as far as the eye could diſcern. They jumped up every moment, ſhewing almoſt their whole bodies. Moſt of them were five or ſix feet long, having a head ſhaped pretty much like a hog's, and in colour were not unlike our Engliſh minnows.—A day or two after our author obſerved ſome of them with noſes exactly formed like quart glaſs-bottles, and full as large; on which account they are not improperly called bottle-noſes; but theſe are much bigger than the others, and differ ſtrangely from thoſe found upon the Britiſh coaſts.

The ſheep of Nevis have neither horns nor wool, being hairy and ſmooth ſkinned, and generally full of red or black ſpots, reſembling thoſe of a fine ſpaniel. They breed twice a year, if not oftener; bring uſually two, three, or four lambs at a time; and, what is more extraordinary, ſuckle them all. The rams are of a pale red colour, with a thick row of long ſtrait hair hanging down under their throat, from their lower jaw to their fore legs. They have likewiſe plenty of goats, which, as well as the ſheep, are very prolific.—Their porkers, being fed with Indian corn, Spaniſh potatoes, and ſugar-cane juice during the crop-time, are very white and excellent food; their fowls, eſpecially their turkeys, of which they have great plenty, are the ſame; their veal is ſmall, fat, and white; but their beef, (adds our author) the principal ſupport of an Engliſhman's life, is lean and tough.

At Nevis, it ſeems, they have excellent game-cocks, and fierce bull-dogs, notwithſtanding the vulgar notion that they degenerate out of England. They have alſo cur-dogs; but no hounds nor ſpaniels, there being no game for them in that iſland. Some of the Negroes, Mr. Smith obſerves, eat dog's-fleſh; in which caſe the dogs, both of the bull and cur breed, are apt to fly outrageouſly at them; and the people there imagine they know them to be dog-eaters, by ſome particular ſcent.—What he adds is very remarkable, viz. that he never once heard of a dog's running mad at Nevis, (notwithſtanding the heat of the climate) as they too frequently do here in England.

THE moſt uſual birds at Nevis are a ſmall kind of ſcreech-owls, noddies, ſpoon-bills, pelicans, pigeons, wild and tame, and ground-doves, which laſt are about the bigneſs of a lark, of a chocolate-colour, ſpotted with a dark blue. Their heads are like that of a robin red-breaſt, and their eyes and legs are of a fine red.—They have likewiſe a few birds called mountain-thruſhes, which are very fat, and reſemble the Engliſh ones; and at one ſeaſon of the year they are viſited by a few ſwallows.

AS to animals of the lizard kind, Mr. Smith particularly takes notice of the guana, though he never ſaw above three or four of them during his ſtay at Nevis; which ſcarcity he imagines may be in ſome meaſure occaſioned by their fleſh making excellent broth, and taſting deliciouſly, as he was credibly informed. From the noſe to the end of the tail they are about a yard long, of the ſhape of a lizard, but walk far more upright upon their legs, and their eye (if poſſible) exceeds the lizard's in beauty. They are all over covered with ſcaly ſpots, each as broad as a ſilver-penny, ſome of a deep black, and others of a moſt perfect yellow. They are very harmleſs creatures, even to a proverb.

LIZARDS are very numerous in Nevis, from three inches to a foot in length; but they are too well known to require a particular deſcription: There is a ſtrange circumſtance however, mentioned by Mr. Smith, relating to a muſical noiſe ſuppoſed to be made by the united voices of lizards, guanas, ſnakes, graſhoppers, &c. which we believe the reader will not be diſpleaſed to have an account of. As ſoon as day-light is well ſhut in, ſays he, the ſaid ſoft and agreeable noiſe begins, to deſcribe which fully and truly he acknowledges he wants words to expreſs his ideas. To give as juſt a notion of it as the nature of the thing will admit, imagine that in a mild and ſtill ſummer's night, inſtead of the croaking of frogs and toads, you hear millions of the ſofteſt melodious notes ſtrike up, almoſt at once, into as high a key as muſic can poſſibly riſe to; and, though they ſeem to form no particular tune, yet are ſweet and ſoothing beyond compare. Our author thought the animals ſung in concert; for when they were up at the higheſt key, they would all of a ſudden ſtop together, and then preſently ſwell their notes, and reſume their wonted harmony as loud as before. At other times they would raiſe and fall their notes in the moſt inchanting manner, and thus would their muſic laſt till day-break. When Mr. Smith firſt heard them, he was ſo raviſhed that he ſtood motionleſs for ſome minutes; and afterwards left his company in the houſe, and went out ſix or ſeven times on purpoſe to liſten to their bewitching muſic; nay, he could not fall aſleep for it till ſome hours after his getting into bed.—In ſhort, during his ſtay at Nevis, his raviſhed ſoul joined moſt chearfully with theſe little creatures every night in ardent and repeated hallelujas to the divine ſource of harmony and love.

Among the inſects found in Nevis, and other neighbouring iſlands, ſome travellers mention a curious one called a flying-tyger, becauſe it's body, like that of a tyger, is marked with ſpots of various colours. It is about the ſize of a large beetle, has a ſharp-pointed head, and two large eyes as green and ſparkling as an emerald. It's mouth is armed with two very ſharp hooks, with which it holds it's prey; and it's whole body is covered with a browniſh cruſty tegument. Under it's two largeſt wings, which are alſo of a ſolid matter, are four leſſer wings as thin as the fineſt ſilk. It has ſix legs, each of which has three joints, and is beſet with little prickles. In the day-time it is continually purſuing other inſects which are it's prey; and in the night it lodges on the trees, where it makes a noiſe almoſt like a graſhopper.

There are horn-flies of ſeveral ſorts, particularly one about three inches long, which has two ſnouts like an elephant's, the one turning upwards, the other downwards. It has a blue head, with two green eyes, incompaſſed by a ſmall white circle. Out of it's back riſes a horn ſhaped like a woodcock's bill, ſmooth on the upper ſide, and covered with down on the lower; which horn reaches to it's head, where it has another reſembling that of a beetle, black as ebony, and as clear as glaſs. It's wings are of a violet-colour, intermixed with carnation; and where the upper ones are expanded two leſſer ones may be ſeen under them, as thin as thoſe of the flying-tyger, and red as ſcarlet.

There is another pretty little inſect with four legs, called a fly-catcher, whoſe colours are various and beautiful. It comes boldly into rooms, and will even light upon the table when people are eating, and catch the flies that crawl upon their cloaths. It's method is to lie waiting for the flies, and, when it ſees an advantage, it leaps directly on it's prey, which it ſeldom miſſes. The ſmall eggs theſe inſects lay they cover ſlightly with earth, and leave them to be hatched by the ſun.

IT is now time to mention ſome of the vegetable productions of Nevis, which we have not occaſionally deſcribed already. There are water melons, Mr. Smith tells us, of five or ſix different ſorts, ſome of them full as big as his head. They melt in the mouth like a peach, and are, in that gentleman's opinion, far the fineſt fruit he ever taſted. The inhabitants eat great numbers of them, which, together with their other fruits, contribute to a plentiful diſcharge of urine. They have alſo muſk-melons, which are the ſame with thoſe in Europe; likewiſe ſhaddocks, penguins, belle-apples, ſea-ſide grapes, and caſhew-cherries, which laſt are called apples in Jamaica.

THE ſhaddock is a fruit ſhaped like an orange, and not unlike it in taſte, though it has not ſo rich a flavour. It is of a beautiful lemon-colour, and as big as one's two fiſts.—Penguins are of two ſorts, one of which is round, about the ſize of an apple, has a thick huſk that covers the fruit, which is of a milk-white colour, and full of very ſmall coal-black ſeeds. They are an agreeable fruit, taſting not unlike a ſtrawberry, and are ſometimes called by that name. The other ſort ſmaller, of a longer ſhape, is very tart, and is uſed for gargling the mouth in fevers.—Belle-apples are about as big as a ſmall golden-pippin, of a deep yellow colour, taſte like a gooſeberry, and have little ſeeds in them like thoſe of that fruit.—Sea-ſide grapes grow in large bunches on trees as big as apple-trees, and near the ſea-ſhore, as their name implies. They are of a red colour, and of a very ſweet taſte.—The caſhew cherries grow on a tree reſembling the Engliſh dwarf apple-tree, but the leaves are of a much lighter yellowiſh green. The fruit is generally of a deep yellow, but ſometimes of a paliſh red; it's ſhape is conical, with the leſſer end towards the ſtalk; and it is about the ſize of a middling pear. At the top of the cherry, in a little cavity grows the ſtone, by ſome called a nut, quite bare, and exactly ſhaped like a ſheep's kidney. It is about an inch long, containing in it a kernel of a fine taſte, but the fruit itſelf has a harſh and uncommon flavour. Mr. Smith tells us of a very ſingular uſe made of this ſtone by the young ladies in the Weſt-Indies, who, when they fancy themſelves too much tanned by the ſcorching rays of the ſun, rub their faces all over with it, after having ſcraped off it's thin outſide ſkin. This cauſes their faces to ſwell, grow black, and the ſkin being thus poiſoned comes off intirely in flakes in five or ſix days; ſo that they cannot appear in public for a fortnight at leaſt, but then they have got a new ſkin that looks as fair as that of a young child. In the pores of this ſtone or nut, it ſeems, there is lodged a ſharp aromatic oil, of a cauſtic quality, which, if taſted of, occaſions an uneaſy ſenſation for ſeveral hours; and it is this oil that takes off the ſkin of the face. Now, though this is frequently practiſed, our author does not remember above one lady who owned that ſhe herſelf had tried the experiment. The whole operation ſhe acknowledged was painful; but alas! (ſays Mr. Smith) what will not pride attempt?

THE calabaſh-tree is likewiſe the produce of Nevis, St. Chriſtopher's, and ſeveral other of the Leeward iſlands. It ſpreads like a large apple-tree, and bears a fruit almoſt as big as a man's head, quite round, but is of no uſe except for bowls, &c. after the inſide (which is not fit to eat) is ſcooped out; and then the ſhell is almoſt as thin and light as the thickeſt ſort of brown paper. Mr. Smith was informed, that ſpoons, bowls, and other utenſils for the ſlaves to eat out of, are made of calabaſhes at Barbadoes.

THERE is a tree in Nevis and the adjacent iſlands called diddle-doo, of the ſize and ſhape of a codlin-tree, but with narrow thin leaves. It bears a beautiful bloſſom, of the fineſt yellow and ſcarlet colours, ſomewhat reſembling the flowers of naſturtium. Theſe are eſteemed a ſovereign remedy in the green-ſickneſs, which diſtemper however is very rare in ſo warm a climate, and where the young ladies ſo frequently uſe the exerciſe of dancing and riding on horſeback, which all together keep the blood and other juices of the body in their regular courſes.

IN their paſtures they have a buſh, growing about two yards high, called a ſage-buſh, the leaves whereof are not to be diſtinguiſhed from thoſe of the broad green ſage, either by ſight or ſmell. The tea made of it is of a fine yellow colour, but ſo extremely bitter, that the beſt refined ſugar cannot render it palatable.

THEY have jeſſamine buſhes at Nevis (not nailed to the walls as in England) which bear flowers full as large as primroſes, of a very fragrant ſmell. Theſe flowers are as white as ſnow, and ſo thick ſet together, that the whole buſh, at a little diſtance, looks as if it was covered with a white Holland ſheet.

WE ought not to omit a very ſingular ſort of vegetable which Mr. Smith deſcribes, though he cannot recollect it's name. It has neither roots, branches, leaves, nor flowers, but is round and about as thick as a common whipcord, and runs along the tops of buſhes all manner of ways, till it exceeds a hundred yards in length. It is of a moſt beautiful yellow colour, and intirely different from the buſh which breeds and nouriſhes it; ſo that our author makes it a query, whether it may not be of the miſletoe-kind, though he never ſaw it growing on bulky trees.

ANOTHER ſingularity Mr. Smith takes notice of is, that in the mountain-plantations at Nevis, where they have aſparagus produced from London ſeed, he has known it fit to cut in three months from the time of it's being ſown; for there, inſtead of tranſplanting the roots, they let it run up to wood, in order to ſhade the bed from the ſcorching rays of the ſun; and the young ones that grow up under that wood they cut for boiling: but by this means a bed will not hold good much above two years, and the aſparagus is never large.

WE ſhall cloſe our account of the vegetables of Nevis with a plant called caſſada, which is remarkable for being of a poiſonous quality, and yet affording a good ſort of bread to the inhabitants of many parts of the Weſt-Indies*. Caſſada (according to Mr. Smith) is a ſhrub four feet high or upwards, the ſtem of it being ſtrait, tough, browniſh, and very knotty, juſt like a crab-tree ſtick; and at the top it is beſet all round with long narrow leaves of a deep green colour. In order to make bread of this plant, the root of it is carefully ſcraped till the white part appears, and then it is rubbed hard againſt a tin grater about two feet long, ſhaped like a nutmeg-grater, and nailed faſt to a piece of wood; and, being very juicy, it is ſoon reduced to a ſoft matter reſembling children's pap. This pappy ſubſtance is then put into a hair bag, and preſſed hard between two ſtones, till there runs from it a milk-white liquor of a diſagreeable ſmell, and which is rank poiſon; for, if a turkey, hen, or other fowl, happen to get to the preſs and taſte this juice, it inſtantly dies. After this the caſſada is laid in the open air, that the heat of the ſun may exhale what poiſonous particles the preſs could not ſqueeſe out; and, being thus dried it is ſifted through a ſieve, made into thin cakes, and baked upon a broad iron kept purely for that purpoſe. Our author was an admirer of this bread, and aſſures us it made excellent puddings.

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* Dr. Derham obſerves, that many plants, animals, and minerals, which in one form are deſtructive to mankind, in another are uſeful and healing; and as one inſtance he mentions the caſſada plant, which unprepared poiſoneth, but prepared is the very bread of the Weſt-Indies. Sir Hans Sloane ſays it is uſed to victual ſhips, and is of the moſt general uſe of any proviſion all over the Weſt-Indies, eſpecially in the hotter parts.

THE productions of St. Chriſtopher's, Antegoa, Montſerrat, and the other Leeward iſlands, being much the ſame as thoſe of Nevis, we ſhall have the leſs to ſay concerning them, though we muſt not wholly paſs them over in ſilence. St. Chriſtopher's is the largeſt of all theſe iſlands, and is repreſented by ſome writers as one of the moſt delightful ſpots in the world, it's mountains, though in ſome parts there are dreadful rocks and precipices, riſing gradually one above another, and being adorned with woods ever verdant (except towards the top) and intermixed with plantations, houſes, and gardens. Mr. Smith, whom we have ſo often quoted, paid a viſit to a friend at St. Chriſtopher's, and took a journey to the top of the great mountain there, an account whereof is the ſubject of one of his letters, of which we have already made ſome uſe, and from whence we ſhall now extract a few more particulars.

FROM Baſſe Terre, the chief town of the iſland, our author ſet out with his friend for Chianne, and, after riding through many plantations of ſugar, and ſome of cotton, they came to thick woods, wherein they were agreeably entertained with the ſoft notes of vaſt numbers of turtle-doves, which, with the murmurs of the ſea beating gently againſt the rocks at half a mile's diſtance, were enough to lull any one to ſleep who was ſo inclined. To avoid the heat of the ſun they travelled along the gill (or deep valley) which runs upwards from the ſea-ſide, growing ſteeper the farther from the coaſt, and plentifully ſtocked with wild palm-trees, pimento, caſſia fiſtula, and other fragrant trees. Through the whole length of this gill, which is about two hours journey, runs a little but exceedingly tranſparent river of very ſweet water; and not far from the ſide of this rivulet there is a pleaſant garden, regularly planted with rows of citrons, lemons, oranges, limes, pomegranates, &c. beſides pine-apples, aſparagus, lettuces, and all ſorts of European roots and herbs that will grow in ſo warm a latitude. To this garden the gentlemen and ladies often come from Baſſe Terre, to divert themſelves, with ſinging, dancing, cards, and ſuch-like amuſements.

IN the evening our author arrived at his friend's houſe at Chianne, which is about eight miles from Baſſe Terre, the road thither having the ocean on the right, and the vaſt Conorrhee hills on the left, whoſe lofty tops then touched the clouds, and ſeemed to riſe to that height almoſt perpendicularly. The next morning they diverted themſelves with catching cray-fiſh in Chianne river, or rather brook, for it is narrow and ſhallow, but a very clear ſtream, which they poiſoned with green tobacco pounded and mixed with unſlaked lime. This poiſon is ſo ſtrong that the fiſh crept out of the water to ſhun it; at which Mr. Smith was not a little ſurpriſed, but his friend aſſured him it was a common thing.

THE thick woods in this iſland ſwarm with monkeys, who venture out in the night to ſteal potatoes and other proviſions. Through theſe woods our traveller, in company with nine others, Whites and Negroes, began to aſcend the mountain, the aſcent growing ſteeper and ſteeper, the higher they advanced; and in the like proportion the large trees began to dwindle and grow ſhorter. Before they paſſed by all the trees, they entered among the clouds, which felt raw and cold, not unlike a fog in a winter's morning. From theſe woods to the top, which is almoſt half a mile, there are no trees at all, and very rarely a buſh, the ground producing ſcarce any thing but a ſort of wild pine-apple-plants, which bear no fruit. Being at laſt arrived at the top with great fatigue, the clouds were at leaſt half a mile beneath them, but, the wind diſperſing them, a lovely view was opened of the woods and plantations below, beſides an unbounded proſpect of the Atlantic ocean. The top of this mountain is a ſmall plain, not three hundred yards wide, ending at the verge of a vaſt deep cavity, exactly round, and about a mile in circumference. Our author judges it's perpendicular depth to be about two hundred and twenty yards, and owns he looked down into it with horror, obſerving large and continual clouds of ſteam ariſe from the veins of ſulphur, &c. with which the bottom of it every-where abounds. The rim of this cavity, except where it joins to and makes part of the plain, is not above twenty, and in ſome places ſcarce ten yards broad; and the inſide of it, for at leaſt half-way downwards, appears to be ſolid rock, over-run with very ſhort blackiſh moſs. Upon maturely weighing the whole ſtate of this mountain, ſays Mr. Smith, we unanimouſly agreed that it was on fire underneath us, and that the cavity was formerly (perhaps ages ago) occaſioned by ſome furious and dreadful eruption, when it might be a volcano for a while, like Veſuvius or Ætna *.

Upon the rim of the cavity, to the ſouth-eaſt, there is a large and ſteep rocky mount, called mount Miſery, from a raſh fool, who, attempting to climb the precipice, fell backwards and was killed. It is the higheſt point of land on St. Chriſtopher's, it's height being reckoned a mile and a half perpendicular from the ſea; but Mr. Smith thinks it not ſo high by a quarter of a mile. This vaſt mountain is in the middle of a long chain of leſſer and lower ones, that run croſs the iſland; but, lofty as it is, our author thinks the Nevis mountain conſiderably higher.

The whole breadth of one part of the abovementioned rim is taken up by a large ſingle rock, in the form of a triangular pyramid, equilateral, and almoſt as ſmooth as if it had been cut by the chiſſel of a ſkilful workman. From angle to angle (at the baſe) it meaſures ſeven or eight yards, is ſomewhat blunted or rather broken off at the top, and a third part downwards from thence it

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* Our author's conjecture is highly probable, ſince there is juſt ſuch a mouth or cavity on the top of Veſuvius, from whence the fiery eruptions proceed, as this he deſcribes on the top of the mountain at St. Chriſtopher's—See Vol. II. p. 10.

ſeems to be cracked quite through ſideways. The colour of the rock reſembles the red part of oriental granite, and like that too is ſo extremely hard, that a ſtrong arm can ſcarce make a viſible impreſſion on it with the ſteel point of a ſharp cutlaſs. This triangular pyramid on one ſide of the cavity, and mount Miſery on the other, each taking up the breadth of the rim, prevent a perſon's walking more than half way round the circle.

NEAR this pyramid, by the help of buſhes and roots, our author and his company ventured to ſlide down forty or fifty yards into the cavity, till they came to ſome wild bananas which were ready to quench their thirſt with moſt clear and excellent water that runs out of them upon ſticking in a penknife juſt where the leaves join to the top of the body of the tree, and ſo form a ſmall hollow, as if on purpoſe to receive the bleſſings of Heaven, the rain and the dew, and reſerve them for the thirſty traveller. It is obſervable of theſe trees, that they are annuals, dying quite to the ground every autumn, and ſhooting up again from the roots in the ſpring till they are thicker than a man's thigh; but the wood is ſo very ſoft and porous, that one may eaſily cut it through at a ſingle ſtroke with a good ſharp hatchet.

KEEPING on in a very ſteep deſcent, through this wood of bananas, cabbage-trees, &c. they arrived at the bottom of the cavity, where having croſſed a little plain they came to an uneven ſpot of ground conſiſting of thirty acres or upwards. Here they found a very large rock, jutting out of the ſide of the hill; and at the bottom of it were three or four round holes in the earth as wide as a hat-crown, from whence iſſued hot ſteams like ſmoke out of chimneys, which tinged the edges of the holes with ſeemingly very fair brimſtone.

The little plain above-mentioned is ſo ſulphureous that it bears nothing but long deadiſh graſs or rather weeds, with a few ſhort rotteniſh buſhes.

At length they came to ſome boiling ſprings, commonly called the devil's coppers, each of them about a yard in diameter. The water is of a muddy colour, and riſes to within a foot of the ſurface of the ground, boiling fiercer, Mr. Smith ſays, than ever he ſaw a ſugar-copper, and ſending up ſtrong clouds of ſteam into the air. No kind of graſs will grow within twelve yards of them, the ſoil being wholly ſulphur, and ſo exceſſive hot, that Mr. Smith and others in company immediately perceived it warm through thick ſhoes which they had bought on purpoſe for this expedition. A Negro, who was with them, was ſtrangely frighted at the ſight of theſe coppers, as they are called; and could not be diſſuaded from believing that Jumbee (i. e. the devil) had his reſidence underneath them.

On the ſouth ſide of the plain before-mentioned there is a pond about forty yards over, not ſupplied by ſprings, but by rains, which fall plentifully and very heavily in that warm latitude. The bottom of this pond conſiſts intirely of clay, of which our author cut up a piece, and to his great ſurpriſe found it as beautifully veined as the fineſt hard Caſtile ſoap, and as fair as well-poliſhed blue-veined marble. — Near this pond grew a bed of ruſhes, on which the company ſat down and dined, and, after reſting themſelves about two hours, returned back to Chianne the ſame way they came, not a little fatigued with their journey.

The vegetables of St. Chriſtopher's are much the ſame as thoſe of Nevis already deſcribed, and ſo are the animals; but there is a bird called a booby, which gives name to a little iſland between the two laſt mentioned, that ſeems to deſerve ſome notice. It is a large bird, of a dunniſh colour; and, if one of them alights (as they now and then do) upon a ſhip's yard-arm, it will ſtand there till a ſailor can climb up and catch it with his hands, all the while pecking and ſcreaming out, but never offering to fly away; from whence it has juſtly obtained the name of booby.—And here it may not be improper to mention another bird, ſomewhat bigger than a pigeon, great numbers of which are found in a little iſland called Prickle-pear, to which the women of Anguilla, an inconſiderable iſland about a day's ſail from Nevis, reſort annually to ſtrip them of their feathers; and the poor creatures, it ſeems are ſo ſilly as to ſuffer theſe women to knock them down with ſticks, as they fly about. It is ſomewhat ſtrange however, as our author obſerves, that repeated experience does not teach them wit enough to keep farther off from ſuch dangerous enemies.

THE produce of Antegoa or Antigua is much the ſame with that of the other Caribbee iſlands, but ſugar is it's principal commodity, of which it is reckoned to yield one year with another ſixteen thouſand hogſheads. The ſoil is ſandy, and much of it overgrown with wood; and though, as Mr. Smith tells, there is not one ſingle ſpring of water in the iſland, but it's ſole dependance is on what falls from the ſkies, for which it is ſometimes diſtreſſed, yet it is a thriving and very conſiderable plantation. When the gentleman laſt mentioned was at Antegoa, it was a time of great drought, and the face of the country looked diſmally enough; their ponds were then very dry, and their ciſterns almoſt empty, ſo that they were obliged to fetch their freſh water from Guadaloupe and Montſerrat, which was afterwards ſold for eighteen pence a pail-full. — The capital of the iſland called St. John's is a very regular town, and has the moſt commodious harbour of any in the Engliſh Leeward iſlands.

At Antegoa they have fine prawns, a fiſh not to be met with at Nevis; and they have a ſmall land-crab, whoſe ſhell is not broader than a crown-piece, which they eat as a dainty; but theſe are neglected at Nevis, becauſe there they have plenty of a larger ſort.—Mr. Smith farther informs us, that there are found in Antegoa ſome large white and roundiſh ſtones, whoſe inſide is hollow, and the outſide overſpread, as it were, with one continued heap of fair cryſtal, which ſometimes in a tolerable degree reſembles wrought diamonds ſet cloſe together. That gentleman had a ring ornamented with one of them, cut brilliant-faſhion, which looked like a Briſtol ſtone.

The iſland of Montſerrat is mountainous, but it's valleys are well watered and fruitful. The mountains are covered with cedars, cypreſſes, iron-trees (ſo called from the hardneſs of the wood) and variety of ſhrubs and plants, particularly one called the muſk-herb, which grows like a bramble, but is not prickly, and bears yellow flowers, which are ſucceeded by pods full of ſeeds that ſmell like muſk. Indigo and ſugar are it's chief commodities, but it is not reckoned ſo good as that of Jamaica and Barbadoes. In ſhort, it is a well-planted iſland, and pretty much frequented by ſhipping, but it is ſo ſurrounded with rocks, that the riding before it is unſafe, and it has no place that can properly be called a haven.

We find nothing more remarkable relating to Montſerrat, than the dreadful hurricane which happened there on the 29th and 30th of June 1733, and blew down three fifths of the houſes in the iſland. On the 29th there were thirty-four wind-mills going, many of which were intirely deſtroyed. A large copper, that held two hundred and forty gallons, was carried over a high wall, and beat cloſe together by the fall. An empty ſugar-hogſhead was lifted off the ground by the wind, and carried thirty or forty yards over a dwelling-houſe. But, what is moſt ſurpriſing of all, a cattle-mill-houſe, weighing at leaſt twenty thouſand pounds, was carried ſome diſtance from it's ſituation, and by the force of the fall was broken into innumerable ſhivers. Such havock was made among the ſugar-canes, that ſome planters, who had a proſpect of making two or three hundred hogſheads the next year, would gladly have compounded for ſixty or eighty. In a word, the whole damage, excluſive of the ſhipping, was reckoned not leſs than fifty thouſand pounds of their currency.

TABAGO, or Tobago, the moſt eaſterly of all the Caribbee iſlands, is thirty-two miles in length from the ſouth-eaſt to the north-weſt, about nine broad from eaſt to weſt, and about ſeventy miles in compaſs. It is not ſo hot as might be expected from it's being ſeated ſo near the equator, as the eleventh degree ten minutes north latitude; and it is agreeably diverſified with hills and vales, it's north-weſt extremity is mountainous, but no part rugged or impaſſable. It's ſoil is in general rich, and proper for producing in the greateſt plenty, whatever is raiſed in the other parts of the Weſt-Indies. It's many ſprings contribute to it's healthfulneſs and fertility, and it's bays and creeks are commodious for all kinds of ſhipping. The valuable trees that grow in this iſland are perhaps it's richeſt produce; for, beſides it's producing the different kinds of wood found in the other Weſt-Indian iſlands, the Dutch, by whom it was once ſettled, affirm that both the true nutmeg and the cinnamon-tree, with that which produces gum-copal, grow upon it. It is ſaid alſo to produce five different kinds of pepper, with Indian and Guinea corn without culture. The figs that grow here are as good as thoſe of Spain and Portugal. The pine-apple, the prickle-apple, oranges, lemons, and limes, are found here in plenty; and excellent marmalade is made of it's guavas. Here are alſo the fineſt plantanes, tamarinds, grapes, the cuſtard-apple, the mammee-apple, the papaw-apple, the cocoa-nut, muſk, and water-melons. It has been ſettled both by the Dutch, the Courlanders, and the French; but by the laſt treaty of peace was ceded to Great-Britain, and meaſures have ſince been taken to ſell the land in ſhares, and people the country.

Dominica lies about half-way between Guadalupe and Martinico; it extends about thirty-nine miles in length from the north-weſt to the ſouth-eaſt, and near as much over in it's broadeſt part. The ſoil is good, and the ſides of the hills are ſaid to bear the fineſt trees in the world; indeed it is eſteemed one of the beſt of the Caribbee iſlands on account of it's fruitful valleys, extenſive plains, and fine rivulets. It produces, among other fruit, the fineſt figs, and in general it's produce is much the ſame as that of the other Caribbee iſlands. Here are a great number of ring-doves, ortolans, and partridges, with two ſorts of wild hogs, deſcended from ſuch as were firſt brought from France and Spain. This iſland was in expreſs terms ceded to the king of Great-Britain by the late treaty of peace.

ST. LUCIA was thus called, from it's being diſcovered on the day dedicated to St. Lucia, the virgin martyr. It lies about ſix leagues ſouth of Martinico, and twenty-one miles to the north-weſt of Barbadoes. It is twenty-three miles in length, and twelve in breadth; and has ſeveral hills, at the foot of which are fine pleaſant valleys, well watered with rivers, and ſhaded with tall trees that afford excellent timber. The air is ſalubrious, and it has ſeveral good bays and harbours. This iſland, with that of St. Vincent, after being at different times inhabited by the Engliſh and French, were declared neutral; but, by the late treaty of peace, the French king reſigned all claim to them to his Britannic majeſty.

GRANADA is about thirty miles in length, and in ſome places fifteen in breadth, it has ſeveral ſmaller iſlands near it, called the Granadillas; and enjoys a good air, and a ſoil remarkably fertile. They all produce very fine timber, as well as fruit-trees; particularly the latin-tree, which has a tall trunk, and inſtead of boughs bears leaves like fans, with long ſtalks, which, being tied together, ſerve to cover the roofs of houſes. Here are abundance of armadillos, whoſe fleſh is ſaid to be as good as mutton; and the ſoil is fit for producing ſugar, tobacco, and indigo. Theſe iſlands were ceded by the French to the crown of Great-Britain by the definitive treaty of 1763, and are now in part ſettled by his majeſty's ſubjects.

THE reſt of the Caribbee iſlands poſſeſſed by the Engliſh are too inconſiderable to detain the reader with an account of their productions; but we think it not improper, before we take our leave of the Britiſh colonies, to give ſome account of the Bermudas, or Summer iſlands, which lie a great way north of the Caribbees, in the ſame latitude

titude with South Carolina, which is the neareſt land to them, and yet that is about three hundred leagues diſtant. Their firſt name they had from John Bermudes, who diſcovered them in 1503; and their ſecond from Sir George Sommers, who was ſhipwrecked upon them in 1609, ſince which they have been corruptly called the Summer iſlands. They are many in number, but moſt of them are ſmall, barren, and uninhabitable. The largeſt of them, called St. George, is about ſixteen miles long, and three over where broadeſt, and is ſurrounded with high rocks which jut a good way into the ſea, and ſerve it inſtead of a ſtrong rampart.

When the Engliſh firſt ſettled here, they found themſelves infeſted by ſuch vaſt numbers of large rats as devoured all their proviſions both in their houſes and in the field, and were like to have cauſed a famine, and overthrown the ſettlement. At length however, they found means to rid themſelves of thoſe deſtroying vermin, and have ſince ſo well improved their little plantation, that the number of Engliſh inhabitants are computed to be above ten thouſand, (beſides ſlaves) who carry on a good trade in tobacco, of which they have large crops, but far inferior in goodneſs to that of our other plantations. They have likewiſe ſome cochineal, take ſome pearls on their coaſts, and ſome ſmall quantities of ambergriſe; and theſe are the chief articles of their commerce, for the ſecurity of which they have built no leſs than ten forts, moſt of them well manned and armed, and all kept in good repair.

The country is moſtly mountainous, but is has fertile plains. The ſoil is of various colours, ſome brown, (which is eſteemed the beſt) ſome whitiſh, and ſome reddiſh, not unlike potter's-clay. Two or three feet below the mould there lies a white hard body, which the inhabitants call the rock, but ſeems rather to be a ſort of chalk or pumice-ſtone, through which however the roots of the trees force themſelves a paſſage. Upon the whole, though the ſoil is thin and ſtony, it is very fruitful; the climate is temperate, yet warm enough to produce two crops in a year; but the water is generally brackiſh and diſagreeable, except that which falls from the clouds, and is preſerved in ciſterns.

THIS iſland produces ſome fine fruits, eſpecially oranges, which are reckoned very delicious, and uſed formerly to be brought into Europe. The cedars that grow here are ſaid to excel in many reſpects thoſe of other parts of America, particularly in the fragrancy, durableneſs, beauty, and hardneſs of their wood; and here is ſuch plenty of them, that they are uſed in building ſloops, brigantines, and other veſſels, as well as in their churches and ſome of their houſes: and it is to be obſerved, that ſhips built at Bermudas are reckoned as good as any throughout the Weſt-Indies.—Their palmetto, or wild palm, is alſo very uſeful, the wood being ſerviceable for building or fewel, and the leaves, which are eight or ten feet long, making a good covering for their houſes.

THE woods of Bermudas afford ſeveral medicinal vegetables, and among the reſt one that bears a berry of a ſtyptic quality, uſed by the Engliſh to cure thoſe fluxes with which they are commonly afflicted by eating too frequently of the palm-berry or other delicious fruits. But there are two plants particularly remarkable and ſingular, the one for it's uſe, the other for it's noxiouſneſs. The firſt is the red wood, ſo called from it's fine tincture, eſpecially that of it's berry, from whence proceed little worms, which afterwards become flies, ſome of them larger than the cochineal-fly, and ſaid to exceed that in it's medicinal virtue. The other is a weed which grows much like our ivy, and, according to the account of a gentleman who had reſided a long time at Bermudas, is of ſo poiſonous and ſubtil a nature, as to affect a perſon only paſſing by it, without touching it, in ſuch a manner as to peel the ſkin off his face. However, it appears by the gentleman's account, that it does not affect all conſtitutions alike, ſince he himſelf tells us, that he had chewed it in his mouth without feeling any inconvenience. This is ſaid to be the only plant of a poiſonous nature in the whole iſland.

THERE are ſuch numbers of turtle caught at Bermudas, that the inhabitants make them their common food, their fleſh being very white, tender, and delicious. They have a ſurpriſing variety of fowls, ſuch as ſwans, ducks, widgeons, teals, ſnipes, hawks of ſeveral ſorts, ſtorks, herons, bitterns, cormorants, baldcoots, moorhens, &c. beſides a multitude of ſparrows and other birds of the ſmaller kind. There is likewiſe a ſort of water-fowl peculiar to theſe iſlands, which are called cowkoes, and hatch their young in holes and burrows of the rocks like rabbets. They are as big as a ſea-mew, and were formerly in great plenty; but, being of ſo gentle a nature as to be eaſily caught, and withal very good food, the inhabitants have made ſuch havock among them, that they are now rather ſcarce than numerous.—The tropic-bird is alſo frequently ſeen about Bermudas, which is a high-ſoaring bird, about the bigneſs of a partridge, of a milk-white colour, with a tail conſiſting only of one ſingle white feather a foot and a half long. Theſe birds are commonly met with about the tropics, whence their name, and often many hundred miles from land; which may alſo be ſaid of the ſheer-water, a browniſh-coloured fowl, almoſt as big as a gooſe, which is very ſtrong-winged, and frequently alights on the ocean.

THEY have ſuch plenty and variety of fiſh about theſe iſlands, that they have not yet found names for many ſorts of them, both of the ſcaly and ſhelly kind. Some whales are caught upon their coaſts, chiefly in February, March, and April; but all their attempts to eſtabliſh a whale-fiſhery have been unſucceſsful. The Bermudans formerly drove ſome traffic in ſperma-ceti and train oil, but that branch of their commerce is now decayed.

IT is ſaid there are no venomous creatures of any kind in Bermudas, but perhaps a greater variety of inſects than in any other of our plantations in proportion to the bigneſs. Amongſt theſe their ſpiders are very remarkable, for their extraordinary ſize and the ſtrength of their webs. Their bodies conſiſt of two parts, one flat, the other round, and both together, with the legs ſtretched out, are large enough to cover a man's hand. This monſtrous bulk makes them look frightful, but the beauty and variety of their colours in ſome meaſure take off the diſtaſte. The round part of their body is ſhaped much like a pigeon's egg, and under the flat part grow their legs, five on each ſide, with four joints, and claws at the end. They have a little hole in their backs, and their mouths are covered with greyiſh hairs, intermixed with ſome bright red, and have a crooked tooth on each ſide, of a hard poliſhed ſubſtance, and of a bright ſhining black; ſo that they are often ſet in gold and ſilver, to ſerve for tooth-picks. When theſe creatures grow old, they are covered all over with a ſort of down, of a brown or blackiſh colour, very ſmooth, ſoft, and ſhining like velvet; and it is ſaid they caſt their downy ſkins every year, as well as the two teeth juſt mentioned. They ſhew a wonderful ſkill and agility in ſpreading their webs from tree to tree, which, are ſo very large and ſtrong, as to extend ſeven or eight fathoms, and when finiſhed will inſnare a bird as big as a thruſh.

These iſlands, like the Caribbees, are ſubject to violent hurricanes and thunders; but, upon the whole, the inhabitants ſeem to be happy in the pleaſure and plenty of their country, which they look upon as a ſafe and quiet retreat from the cares and troubles of the world. They enjoy a pure ſweet air and temperate climate, the heat being moderated by conſtant ſea-breezes; and, in ſhort, they have ſuch a reputation for their healthineſs, that they are reſorted to as the Montpelier of America. Mr. Stafford (in the Philoſophical Tranſactions, No. 40.) tells us, that people there frequently live a hundred years or upwards *, and that they die of age and weakneſs, rather than any diſeaſe.

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* A hundred years is certainly a great age, and what very few arrive at, compared with the bulk of mankind whoſe longevity dwindled as the world was peopled, till it came down to ſeventy or eighty years, and there it ſtood and has continued to ſtand ever ſince the time of Moſes. In our own country we have ſome extraordinary inſtances of long life, as that well known one of old Parr, who lived a hundred and fifty-two years and nine months. But Parr was conſiderably exceeded by Henry Jenkins, who (as Dr. Robinſon informs us in the Philoſophical Tranſactions, No. 221.) died in 1670 at Ellerton on Swale in Yorkſhire. He was about twelve years old when the battle of Floddenfield was fought, which happened on the 9th of September, 1513; ſo that he lived a hundred and ſixty-nine years. His diet was generally coarſe, and in the laſt century of his life he was a fiſherman, but towards the end of his days he begged up and down. He had ſworn in Chancery

We ſhall now return towards the eaſt coaſt of America, and proceed to the north, where, entering the gulph of St. Lawrence, we ſhall find three iſlands ſubject to Great-Britain.

Cape Breton, which was conquered during the late war, and ceded to his Britannic majeſty at the concluſion of the peace, is ſeated in the above gulph, and is above one hundred and ten miles from the north-eaſt to the ſouth-weſt, and round it are a number of harbours and bays, which form a ſafe retreat for ſhips bound either to or from Canada, whence it has been generally conſidered as the key of Canada. The climate is however ſevere in winter, and ſubject to fogs; a conſiderable part of the land is alſo barren: it however produces oaks of an extraordinary ſize, pines, beech, maple, aſh, cedar, aſpin, wild cherry and plane trees; with ſome ſorts of fruit, particularly apples. The mountains may be cultivated up to their tops, and it is obſerved that the good ſoil always inclines towards the ſouth. There are here great numbers of fowl, particularly very large partridges, and many animals originally brought from Europe, as horned cattle, ſheep, goats, hogs, and poultry. The lakes, rivers, and bays, abound with beavers, otters, and excellent fiſh in the greateſt plenty.

The iſland of St. John is ſituated partly between Cape Breton and the continent, whence it

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Chancery and other courts to above a hundred and forty years memory; and Dr. Robinſon was told by ſome Yorkſhire gentlemen, that Jenkins frequently ſwam the rivers after he was paſt the age of a hundred years. — Add to theſe inſtances thoſe of the counteſs of Deſmond and Mr. Eccleſtone, both of Ireland, who each lived to above a hundred and forty years of age.

has nearly the ſame climate; but greatly exceeds that iſland in it's pleaſantneſs, and the fertility of it's ſoil. It is about ſixty miles in length, has a commodious harbour, and abounds with a variety of uſeful timber, and moſt kinds of game common to the neighbouring country. It is ſo fertile, and was ſo well improved while in the poſſeſſion of the French, that it was ſtiled the granary of Canada; and when taken in the late war, had upwards of 10,000 head of black cattle, and ſome of the farmers annually raiſed 1200 buſhels of corn. It has ſeveral rivers which abound with ſalmon, trout, eels, &c. and the ſurrounding ſea affords plenty of ſturgeon, plaice, and moſt kinds of ſhell-fiſh. Both this iſland and Cape Breton, with ſeveral ſmall adjacent iſlands, are under the governor of Nova Scotia.

Newfoundland was thus called by Cabot, by whom it was diſcovered in 1497. It is of a triangular form, and ſeated on the eaſt ſide of St. Lawrence, extending three hundred and fifty miles in length from north to ſouth, and two hundred in breadth at the baſe. It's coaſts are extremely ſubject to fogs, that riſe from the vapours exhaled from the lakes, ſwamps, and bogs, with which the iſland abounds. The winters are ſevere, and attended with almoſt continual ſtorms of ſnow; and the ſoil is barren, except on the banks of the rivers. There are, however, woods of different kinds, throughout almoſt the whole country, which contain abundance of timber fit for ſhip and houſe building, and, in many places where the lands are cleared, is good paſturage. There are here many fine rivers, lakes, and rivulets, that abound with beavers, otters, and fiſh; and the foreſts are ſtored with deer, bears, wolves, and foxes; but there are few horned cattle, ſheep, or horſes; therefore, inſtead of the latter, the inhabitants make uſe of dogs for drawing wood and other neceſſaries; for which purpoſe they fix them in leather collars, and yoke together what number they pleaſe. There are here great plenty of wild fowl; and near the coaſt is the fineſt cod-fiſhery in the world. The number of Britiſh inhabitants on the iſland is very fluctuating and uncertain, there not being half the number in winter that there are in ſummer.

COMMERCE of the BRITISH AMERICAN ISLANDS.

IT is now proper to give ſome account of the cod-fiſhery, for which it's coaſts have been long famous, and which is a branch of commerce of prodigious advantage to Great-Britain, as the French know very well, and are therefore endeavouring to get as large a ſhare of it as poſſible into their own hands. That part of the ſea, where this fiſhery is chiefly carried on, is about the great bank of Newfoundland, which is a kind of ſubmarine mountain of ſand, about a hundred and fifty leagues in length, and in ſome places fifty in breadth, lying on the eaſt ſide of that iſland. To this great bank, and others near the coaſt, ſeveral hundred ſhips reſort annually from divers parts both of America and Europe, many of which bring away thirty or thirty-five thouſand fiſh apiece; and, though this yearly conſumption has been made for two centuries paſt, yet the ſame plenty of fiſh continues, without any ſenſible diminution, inſomuch that one would think them equal in number to the grains of ſand on the banks they frequent*. The gulph of

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* We have heretofore taken notice of the vaſt fecundity of plants, and that of fiſhes is not leſs ſurpriſing, eſpecially when we conſider that theſe inhabitants of the waters are not only deſtroyed

St. Lawrence, and the coaſts of Nova Scotia; and Cape Breton, as well as thoſe of Newfoundland; abound with theſe inexhauſtible treaſures, theſe rich mines, which are of greater value, and cheaper wrought, than thoſe of Peru and Mexico: For, as the author of the Britiſh Empire in America obſerves, beſides the great profit which particular

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deſtroyed by man, their common enemy, but are perpetually devouring one another, the ſmaller being a prey to the greater. But notwithſtanding theſe mutual depredations, and the ſnares of the fiſhermen, by which one would think the watery element would in time be depopulated, we ſee the wiſe Creator has ſufficiently provided for their preſervation by giving ſtrength to ſome, to others activity and circumſpection, and by multiplying them to ſuch an aſtoniſhing degree, that their fecundity exceeds their natural impatience to devour one another, and thoſe vaſt numbers that are deſtroyed are ſoon recruited by the ſurvivors of the ſpecies. Thus cod-fiſh in particular, though ſo many ſhip-loads are every year taken about the great bank of Newfoundland, thoſe remaining of the ſame tribe are always more than ſufficient to furniſh us with the ſame quantity the ſucceeding ſeaſon. Almoſt every one has an opportunity of obſerving the prodigious number of eggs or ſpawn in ſome ſorts of fiſhes; but what can the naked eye diſcern in compariſon of what M. Leewehoeck diſcovered by the aſſiſtance of his excellent microſcopes! This gentleman, examining the ſpawn of a cod-fiſh, took one of the hairs of his head, which through his glaſs appeared to be an inch broad, and placing it near the animalcula contained in the ſpawn, he found that at leaſt ſixty of them would lie within it's diameter. This being ſuppoſed, and their bodies being allowed to be, as they are, ſpherical. M. Leewenhoeck computed that 216,000 of them are equal to a globe whoſe axis does not exceed a ſingle hair's-breadth, M. Petit found 342,144 eggs in the hard roe of a carp eighteen inches long; but M. Leewenhoeck only found 211,629 eggs in one of thoſe fiſhes. What is moſt to our purpoſe however, the laſt mentioned curious inquirer into the ſecrets of nature tells us, that a cod contains 9,344,000 eggs. Who can help ſtanding amazed at this prodigious fertility, undoubtedly deſigned by providence to preſerve the ſpecies from being intirely deſtroyed by any accidents or enemies whatſoever!

perſons make of this fiſhery, conſidering the ſeamen it breeds, the tradeſmen it maintains, and the ſhipping it requires, the increaſe of the national ſtock ariſing from thence is almoſt incredible. A ſhip of a hundred tons, with the charge only of victuals, wages, and fiſhing-tackle for twenty hands, ſhall carry to market in Portugal, Spain, or Italy, three thouſand pounds worth of fiſh, by which the proprietors ſhall gain at leaſt two thouſand; ſo that a hundred and fifty ſuch ſhips will clear three hundred thouſand pounds annually, and conſequently ſo much will the public and private ſtock be increaſed.

IT is to be obſerved, that there are two ſorts of ſalt cod, the one called green or white, the other dried or cured; but they are both the ſame fiſh, only differently prepared. The beſt, largeſt, and fatteſt cod are thoſe taken on the ſouth ſide of the great bank; and the beſt ſeaſon is from the beginning of February to the end of April, for then the cod, which during the winter had retired to the deepeſt parts of the ſea, return to the bank, and grow very fat. Thoſe caught from March to June keep well enough; which cannot be ſaid of thoſe taken in July, Auguſt, and September. An experienced fiſherman, though he only takes one fiſh at a time, will catch three hundred and fifty or four hundred in a day, but not often ſo many; for it is very fatiguing work, both on account of the weightineſs of the fiſh, and the cold that reigns about the bank. When the heads of the fiſh are cut off, their bellies opened, and the guts taken out, the ſalter (on whoſe ability and care the ſucceſs of the voyage chiefly depends) ranges them in the bottom of the veſſel, and, having made a layer thereof a fathom or two ſquare, he covers it with ſalt; over this he lays another, and covers it as before; and thus he diſpoſes all the fiſh of one day, taking care never to mix the fiſh of different days together. When the cod have thus lain to drain for three or four days, they are moved into another part of the veſſel, and ſalted a ſecond time; and this is all the preparation theſe green fiſh undergo.

THE principal fiſhery for cod intended to be dried is along the ſouthern coaſt of Newfoundland, where there are ſeveral commodious ports to carry the fiſh aſhore; and though, the fiſh are ſmaller here than at the bank, on that account they are the fitter to keep, as the ſalt penetrates them the better. As cod are only to be dried in the ſun, the European veſſels are obliged to put to ſea in March or April, in order to have the benefit of the ſummer for drying. Some veſſels indeed are ſent in June and July, but thoſe only purchaſe fiſh already prepared by the Engliſh ſettled in Newfoundland, giving them meal, brandy, biſcuit, pulſe, linen, &c. in exchange. — When the ſhips arrive in the ſpring, and have fixed upon a ſtation, ſome of the crew build a ſtage or ſcaffold on ſhore, whilſt the reſt are a fiſhing, and as faſt as they catch their fiſh they land them, open them, and ſalt them, on moveable benches; but the main ſalting is performed on the ſcaffold. As ſoon as the fiſh have taken ſalt they waſh them, and then lay them in piles to drain. When drained, they range them on hurdles, head to tail, and whilſt they lie thus they turn them four times every four and twenty hours. As they begin to dry, they lay them in heaps, of ten or twelve apiece; and continue to enlarge the heaps every day, till they are double their firſt bulk. At length they join two of theſe heaps together, and turn them every day, as before.

Laſtly, they ſalt them over again, beginning with thoſe that have been ſalted firſt, and then lay them in huge piles as big as hay-ſtacks. Thus they remain till they are carried a ſhip-aboard, where they are laid on branches of trees, diſpoſed for that purpoſe at the bottom of the veſſel, with mats all round, to prevent their contracting any moiſture.—Beſides the fiſh itſelf there are other commodities obtained from it, viz. the tripes and tongues, which are ſalted at the ſame time with the fiſh, and put up in barrels; the roes or eggs, which, being ſalted and barrelled up, are of uſe to caſt into the ſea to draw fiſh together, particularly pilchards; and the oil, which is drawn from the livers, and uſed in dreſſing of leather.

As to the commerce of our iſlands in America, ſome part of it has been already taken notice of in ſpeaking of that of our colonies on the continent; nor ſhall we enlarge much on that head, but only add a few particulars from which the reader may judge of the vaſt importance of them to Great-Britain. Of theſe iſlands Jamaica ſeems to be of the greateſt conſequence, being reckoned bigger than all the other Britiſh ſugar-iſlands put together, Barbadoes excepted. From Jamaica alone we annually receive about ten thouſand tons of ſugar, beſides two thouſand more in cotton, indigo, ginger, pepper, rum, and other commodities, the produce of that iſland; ſo that there is not leſs than twelve thouſand tons of our own ſhipping conſtantly employed in that ſervice only, beſides what is employed between the iſland and the northern plantations. In return for theſe goods Jamaica takes from us great quantities of our manufactures, both woollen. linen, and ſilks, as well as wrought iron, braſs, copper, and all ſorts of houſhold furniture. This nation alſo reaps great advantage from the trade of the other ſugar-colonies, of which Barbadoes is a remarkable inſtance; for it appeared to the parliament in 1730, that this iſland exported to England in one year 22,769 hogſheads of ſugar, valued at 340,396 pounds: and according to a treatiſe concerning the importance of the ſugar-colonies, publiſhed in 1731, they all produce, on an average, 85,000 hogſheads in a year; the neat profit whereof the author ſuppoſes to be ſpent in England by the proprietors of eſtates in thoſe colonies who reſide here, or ſent out annually in Britiſh manufactures, either directly to the ſugar-colonies, or to the coaſt of Guinea to purchaſe Negroes for their ſervice. The ſame author reckons, that there are three hundred ſail of ſhips ſent every year to our ſugar-colonies from Great-Britain, (not to mention thoſe from other places) which are navigated by about four thouſand five hundred ſeamen; and that the freight for the ſugars brought hither amounts to 170,000 pounds per annum; and the duty, commiſſions, &c. to little leſs than 200,000 pounds more: ſo that, upon the whole Great-Britain gains yearly by the ſugar-trade about 1,200,000 pounds, beſides the profit ariſing from the other articles imported from thoſe valuable plantations. As to the exports from hence to our ſugar-colonies, it appeared by the Cuſtom-houſe books in the year 1726, that the Britiſh manufactures exported to Jamaica, Barbadoes, and the Leeward iſlands amounted to 234,785l. 17 s.

The FRENCH AMERICAN ISLANDS.

TO return to the Caribbees: the largeſt and one of the fineſt iſlands poſſeſſed by the French in thoſe parts is Guadaloupe or Guardaloupe, though it is not near ſo populous as Martinico.

Since the beginning of the preſent century, however, this French colony is very much improved, and is reckoned to contain ten thouſand European inhabitants, beſides thirty thouſand Negroes, and to make more ſugar than any of the Britiſh iſlands, except Jamaica. The iſland is well watered, the air clear and wholeſome, and the ſoil is fertile, producing, beſides ſugar, cotton, indigo, ginger, tobacco, caſſia, pine-apples, and plenty of rice, maize, and potatoes. Some of it's mountains are over-grown with trees of various kinds, and amongſt them there is a volcano continually ſmoaking, which gives a ſulphureous taſte to the rivers that have their riſe near it: there are alſo ſeveral boiling ſprings in the iſland, which are ſaid to be good for the dropſy and other diſtempers.

AMONGST the vegetables of Guadaloupe father Labat found the copau-tree, famous for it's healing balſam or oil, which he ſays he had ſought for in vain throughout all the other French iſlands. This tree grows to the height of about twenty feet, having a leaf like that of an orange-tree, only ſomewhat longer and more pointed, and of an aromatic ſmell; as is alſo it's bark when rubbed between the fingers. The balſam is obtained by making inciſions in the bark of the tree, and is recommended by the abovementioned father as a ſpecific for almoſt all maladies, both internal and external.—Here Labat likewiſe found the milk-ſhrub, whoſe leaf reſembles that of the laurel, only it is larger, thicker, and ſofter; and it's fibres, when preſſed, yield a liquor juſt like milk both in colour and conſiſtence. It bears flowers much reſembling thoſe of jeſſamine, being white, and containing in the middle a little oval bud, which incloſes two ſmall black ſeeds, from whence the plant is propagated. It's bark is of a pale green without, and white within; and it's pith is like that of elder. Labat attributes to it's juice almoſt as many virtues as to the balſam of the copau-tree.—In Guadaloupe there is alſo a tree called corbary, which bears fruit in a ſhell containing a pulp of a ſaffron-colour, and yields a gum, which being hardened in the ſun is very tranſparent; ſo that the native Caribbees uſed it for bracelets and other ornaments.

As to the animals of this iſland, they are in general the ſame with thoſe of the neighbouring ones already deſcribed; but there is a bird of paſſage, which Labat ſays he met with in none of the iſlands but this and Dominica. It is about the ſize of a young pullet, and it's plumage is as black as jet; it's wings are long and ſtrong, it's legs ſhort, it's feet like thoſe of ducks, but armed with ſtrong claws; and it's beak crooked, ſharp-pointed, and extremely hard. It has large eyes, with which (like an owl) it ſees beſt in the night, when it catches fiſh out of the ſea, which are it's only food; and, if theſe birds are diſturbed in the day-time, the light ſo dazzles their eyes, that they fly againſt a tree or any object in their way. Our author ſuppoſes they are the devil-birds, that are ſeen in Virginia and the adjacent countries, from May to October. From the beginning of October to the end of November they ſtay at Guadaloupe, after which they are not ſeen till about the middle of January. There is a mountain in the iſland, from theſe birds called the devil's mountain, where they lodge in holes like rabbets, flying out to ſea in the evening, and returning to the mountain in the morning. Here they lay their eggs and hatch their young, which are ready to fly about the end of May, and are very tender food, but their fat is like ſo much oil. The fleſh of the old ones is blackiſh, and has a fiſhy taſte, but otherwiſe it is very good and nouriſhing. The Negroes and poor people have ſcarce any other ſuſtenance than theſe birds during the ſeaſon; and Labat thought it a great providence that they harboured in places ſo difficult of acceſs as he found the above-mentioned mountain, otherwiſe the French would long ago have deſtroyed the ſpecies.

FATHER Labat tells us, that he once indulged his curioſity to accompany four Negroes in this kind of fowling, not without great fatigue and danger. It took them up ſix hours to get to the top of the mountain, where they lay all night; and next morning, when the birds were returned from their fiſhery, the Negroes repaired to their holes, with dogs trained up to the ſport. Each Negro carried a ſwitch in his hand ſeven or eight feet long, with a crook at the end of it; and, as ſoon as the dogs, which ſmelt at every hole, had diſcovered one with a devil in it, they barked, and began to ſcratch up the ground at the entrance; but they were prevented from doing this by the fowlers, who thruſt their ſwitches into the holes, on which the birds either faſten with their beak, and ſuffer themſelves to be dragged out rather than quit their hold; or elſe the crook is turned round the hole till one of the wings is intangled by it, and ſo the bird drawn out by force. Our author adds, that by noon they had taken a hundred and ninety-eight of theſe birds, and acknowledges that he fed on them very heartily.

THE ſame father viſited the next hill, called the ſulphur mountain, the top of which he found bare, except that a little fern grew on it, and ſome ſorry ſhrubs covered with moſs; which he aſcribed partly to the cold of ſo high a ſituation, and partly to the ſulphureous exhalations. He walked round the hill three hours and a half, among burnt ſtones and whitiſh aſhes, which in ſome places were above his ancles, and ſmelt ſtrongly of ſulphur. On the eaſt ſide of the mountain he ſaw two mouths, one of which was an oval hole, about a hundred feet in it's greateſt diameter; but he would not venture near enough to fathom the depth of it, becauſe it now and then ſent out black clouds of ſmoke, accompanied with ſparks of fire. A little below the leaſt and loweſt of theſe mouths there are three little pools of very hot water, one of which is dark-coloured, and ſmells like iron, or rather like the water in ſmiths forges; the ſecond is whitiſh, and has the taſte of alum; the third is blue, and taſtes like vitriol. The Negroes who ſell brimſtone fetch it from this mountain, the middle and lower parts whereof are quite different from the top, being covered with a pleaſant verdure of tall trees and herbage, watered with many rivulets, and cultivated with all poſſible care and induſtry.

It is obſervable that the bees of Guadaloupe (and we ſuppoſe of the neighbouring iſlands) differ conſiderably from thoſe of Europe in ſize and colour, as well as in the ſtructure of their honeycombs, and the quality of their wax and honey. The bees are blacker and rounder than ours, but much ſmaller; nor do they ſeem to have any ſting, or, if they have, it is too weak to pierce the ſkin. Their neſts are in hollow trees, and their combs conſiſt of little bladders of wax, of the form and ſize of pigeons eggs, but more pointed, and almoſt like the bladder of a carp. They depoſit their honey in theſe bladders, which, though they may be eaſily ſeparated from one another, are ſo artfully diſpoſed and ranged, that there ſeems to be no vacuity between them. Moſt of the bladders are filled with honey, but in ſome of them there is a yellow matter, ſeeded like the eggs of a fiſh, glutinous, and ſmelling like honey. The honey is always liquid, of the conſiſtence of olive-oil, and never ſettles. The wax is black, or at leaſt of a deep purple colour; and father Labat ſays, that all the art of his countrymen could not make it either white or yellow, ſo as to be fit for candles; beſides that it is too ſoft for that purpoſe, and is ſcarce uſed for any thing but to cement the corks of bottles after it is thoroughly purified.

THE next iſland to Guadaloupe, belonging to the French, is Marigalante, which, according to Du Pleſſis, is full of hills, and yields plenty of tobacco. Tertre ſays, that it has ſeveral ſprings of freſh water, and a large grotto with a river in it, which runs a good way under ground, and abounds with large crabs. He adds, that there are ſeveral other large and deep grottos in this iſland, which they call by the name of ſaints; and that for ſeveral miles along the coaſt there are vaſt high rocks, as even as if they had been cut by art, and as full of holes as a pigeon-houſe, which are much frequented by the tropic-birds already deſcribed.—Among the fiſh that are found about this and the neighbouring iſlands are the lamantins, or ſea-cows, which bring forth two young ones at a time, and ſuckle them with their milk like calves. There is alſo a fiſh called recune, about eight feet long, that kills other fiſhes by it's bite, which is ſaid to be as poiſonous as that of a mad dog.

WE now come to Martinico, one of the largeſt of the Caribbee iſlands, and the richeſt, beſt planted, and ſtrongeſt of all the French iſland colonies in America. On the coaſt there are ſeveral fine roads, creeks, and harbours, and it's forts are ſtrongly garriſoned by regular troops from France; beſides which they can muſter a militia of ten thouſand fighting men. The middle of the iſland is full of hills, which give riſe to ſeveral rivers, that ſometimes overflow their banks, and carry away trees and houſes. Some of theſe hills are cultivated, and others overgrown with trees, which afford ſhelter to wild beaſts and abundance of ſerpents. Tobacco is planted on the ſides of the hills, which is reckoned better than what grows in the valleys. The other produce of the iſland is much the ſame as that of Barbadoes, viz. ſugar, cotton, ginger, indigo, aloes, &c. The coaſt abounds with turtle, which make a conſiderable part of the food of the iſlanders, who likewiſe eat a great many frogs and lizards.

HERE we might take a view of ſome iſlands belonging to the Dutch on the coaſt of Terra Firma; but, as they afford us nothing very remarkable, and we are unwilling to detain the reader about what is frivolous and not worthy his attention, we think it proper to put a period to our undertaking, wiſhing that every one who peruſes it may be induced to love and adore the great Author of nature, whoſe works are wonderful, and whoſe power, wiſdom, and goodneſs appear throughout the whole creation.

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